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THE ELEMENTARY SCHOOL TEACHER

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ELEMENTARY SCIENCE TEACHING IN THE LABORATORY SCHOOL.

II.

STARTING from the principle of modern psychology that unity of mental operation is found in response through action, not in the sensation or ideas preceding the action, we can proceed to the corollary that the children's activities represent the concrete side of education and furnish a point of attack. Sensation represents the stimulus to the act, thought the process of making the proper response. From the point of view of this psychological principle the problem of elementary science, then, is: What *activities* furnish opportunities to be used in the growth of scientific method and concepts?

It is a common observation that the child's activities vary in different periods of development,[1] and the following rough classification of his attitude in them might be made: During the first period, from four to six, they are direct and social. He undertakes no long processes with remote ends. The next three years, from six to nine or ten, belong partly in the period of direct activity and partly in a second period, from nine to about twelve or thirteen, where immediate ends are no longer demanded, and where the social interest, although still dominant, begins to yield in force to the dawning intellectual interest. At about twelve or thirteen we come to the age where the beginning of interest in abstraction and formulation marks the beginning of

[1]See *Elementary School Record,* article on the Psychology of Occupations.

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the so-called secondary period of education, when the work can approach in method a scientific ideal.

The above classification will determine the choice of subject-matter from the side of the child's motive, while the scientific generalizations of the teacher play but a secondary part; hence any illustration of the way in which these concepts actually work in experience is secondary to, and must be deferred until after, the consideration of the way in which the child grows in particular scientific ideas. For example, the concept of the conservation of mass and of energy is always implicitly present in the teacher's mind and is one factor in the selection of the subject-matter, while it may be years before the child will be able to appreciate the intellectual value of such a concept, even in part. The following is a brief outline of possible selections of subject-matter corresponding with the periods of development:

During the first year of the first school period (from four to six), in the household and neighborhood occupations chosen as the subject-matter, the particular processes—*e. g.*, cooking, sewing and weaving—are carried out largely through imitation. In the modern social occupation chosen for the six-year-old child the typical ones which furnish food, shelter, and clothing are selected, and here an initiation of conditions or of experiment can be made only in those processes which deal with very familiar material, such as cooking, simple constructive work, and the housekeeping of the class-room or kitchen. The next year, in the summary of primitive history, through occupations from the side of invention and discovery, through imitation is introduced what might be legitimately called experimentation, in cooking, in constructive work, and in carrying on the occupation developed.

The next two years, from eight to nine, might be selected as belonging peculiarly to a transitional, intermediate period. The problem of selection here, as in the first stage, is still social rather than scientific. During the first year of this transition period more initiation and experimentation on the part of the child is demanded by the method of treating social material used. The

occupations are of definite peoples, in actual localities, and have assumed more limited and specialized form. The processes used should be distinctly experimental, the imitation indirect, through memory of past experience or through relation of the results of others' experience, thus involving actual manipulation by the child of the conditions involved. In this year also, without distraction or inhibition of activity, he can formulate simple conditions necessary in the initiation of any experiment, and also consciously apply the result of this experiment in any process he is carrying on, such as spinning, cooking, or constructive work of any kind. The method, however, in which any selected process is carried out is more experimental, involving not only more initiation on the part of the child during experimentation, but also carrying over of the results of experimentation and applying them as rules, principles, or laws to new material.[2]

The particular processes selected would depend entirely on the child and the teacher, although with the former's increasing experience and ability there no longer exists the urgent need for the background of a common experience which is one of the strong factors influencing the choice of material in the beginning of school life. Here the personal element may come in through the life of the people concerned in carrying on the occupation or the process studied. This factor limits the choice to some industry or process either actually going on in the child's immediate neighborhood, or carried on by people about whom he is studying in the more distinctively social or historical work of the school.

As a matter of convenience, during the latter year of this transition stage it is possible to take up what might seem to involve a decided differentiation in studies. For instance, in studying the topography of any locality with which he is concerned, instead of gathering up all the facts as springing from the lives of the people of this locality, he is able, without feeling any break in continuity, to work up the resources of the region under classified heads; for example, to take up the problem of

[2]See MISS HARMER's articles on "Cooking" and "Textiles" in the June number of the ELEMENTARY SCHOOL TEACHER.

what routes would be used for transportation to neighboring countries, and to work out these routes from the topography of the map; or, being given the mineral resources of the region, to work out the industries which spring up as a consequence of these resources. In the same way, in his experimental work, he is able to take some process, such as the making of alloy, like pewter, and to carry over inductively any principle he has discovered and apply it in the making of a new alloy involving the use of new metals. The processes used can be longer, more varied, and initiated by the child from the nature of the conditions and material at hand, through the use of experiments to bring out the need for each step. Here also experiments can be used to separate out one factor of a complicated process as an illustration of the principle of that process; for example, experiments can be given illustrating the relation of chlorophyl to the making of starch, as a part of the plant's life-process.

In the first year of the second elementary period, at the age of ten, the children seem ready to work out experimentally complicated processes in detail. This method of working out the operations used in an industry not only gives some idea of the part which experimentation actually plays in manufacturing, but also gives the beginning of the scientifico-sociological attitude through the concrete formulation of the difficulties to be met in any manufacturing process—the idea of the method of procedure in obtaining crude material, including storage and transportation; the processes gone through in the preparation of that material, involving perhaps the combination of resources from different sections of the country; and finally the placing of the product on the market, involving advertisement, and the manufacturer's relations to the middleman, the wholesale merchant, and the retail merchant.

During the second year of this second period, at eleven and twelve, children are not only ready for the continuation of complicated processes worked out in detail, in connection with some occupation or industry, but are able to work out concretely simple laws, such as the law of the lever, and apply them subsequently in the making of simple machines and apparatus. They

begin to comprehend the need for such units as are involved in the measurement of work; that is, of course, such units as do not involve the idea of acceleration.

Both because the problem itself becomes more complicated and because the field of choice of material becomes exceedingly wide, any definiteness of suggestion is impossible either for these last two years of the elementary period or for the beginning of the secondary period. The beginning of this so-called secondary period of education is marked by the beginning of interest in abstraction and formulations, and hence the beginning of work which can approach in method and subject-matter the scientific ideal. Although oportunities for observation and experimentation here have been much more limited, results would seem to guarantee the general conclusion that, while in this period the child possesses a dawning interest in abstraction, yet it is a mistake to approach whatever portion of the scientific field may be selected from the side of formulation. It is still necessary that all possible connection be made through the selection of material and processes constantly present in the child's own life, and to use these as points of contact with the general ideas which he is now able to manipulate.

A general division of observational and experimental work, from an adult point of view, has been made in nature-study. It would seem that no such distinction exists during the first period of direct activity. Observation and experimentation are the two sides of one process mutually interacting. The child shows the beginning of an observation akin to adult observation, in which the reflective and motor impulses are held in abeyance in periods of quiescent attention to new objects and phenomena. This attention, if no interruption occurs, inevitably seems to lead to action or experimentation with the child. The child's interest in experimentation is, of course, only one form of activity, but the distinction here made, for our present purpose, between the experimentation called observation and the distinctly active experimentation is that in the first the child is a more or less quiescent spectator of natural processes, while in the second he more or less controls and initiates conditions. These two atti-

tudes, of course, overlap until, in the latter half of the elementary period, the child reaches the stage of interest in his own formulation of causes, and unconsciously experiments, rushes in to effect changes himself in what is going on, or actively investigates hidden causes.

To illustrate in brief the way in which the general concept in the teacher's mind may serve as a unifying principle in the choice of work, as contributing toward the child's ultimate formulation of a scientific concept, the idea of force and of matter as controlled through measurement might be taken. In the very earliest use of weights and measures the weights must be used by the child as a way of determining quantity through the pull of the earth upon matter, or gravitation. The scales are a device for finding equal pulls. The necessity for the use of this kind of measure which will appeal to the child could be found in many processes, but may be illustrated by the use made of it in cooking. One of the first operations which the child carries on in the cooking of cereals necessitates the use of flaked rice, which combines with an equal bulk of water, as the unit which determines the amount of water to be used with each bulkier or more compact cereal. This kind of comparison of quantity as obtained by measurement and mass as measured by the pull of the earth can enter into almost any process which he carries on during the first two years. By the time he has entered the transition period he is ready to formulate a rational system of weights and measures either in connection with the people who develop such a system or with the modern use of the metric system. The ways by which this constant reference to the force of gravity can be made more and more explicit in the child's mind are numerous and will present themselves to everyone. As referred to above, when his work on the simple machines begins, he is ready to use the notion of measuring work by units of weight carried through units of space, to understand the proof of the earth's motion by the swing of the pendulum, and in many other ways to interpret the action of this ever-acting gravitational force on animals and plants, or as used in the barometer and in water-power.

Among other topics which can be taken up in this spiral fashion would be the part that plants play in rendering the energy from the sun available for animals. In the first period this topic would inevitably be treated, though not consciously formulated, in connection with all the work in which the children are engaged. The third year's work would especially illustrate, in the life they study, the present dependence of man and domestic animals upon the vegetable world. The next or fourth year would add something to the way in which man has developed these resourses of the earth. The fifth year would add very striking and diverse types of such dependence, showing in the Esquimos a type almost independent of vegetable life, and in the tropics life reduced to its lowest terms of absolute dependence upon vegetable food. The sixth year would begin the first conscious work, when the problem of plant food, and, in the cooking, the ways to make it available, are considered. This would involve the classification of the different forms in which this food is stored and made use of by man. In the seventh year there would be taken up definitely the relation of the storing of this food by the plant to the source of energy, the sun's light. Ideally, in the year following, the eighth, the difference in function in plant and animal, in nutrition, would be taken as a conscious problem; and with the work in mechanics some idea would be gained of the fact that the different forms of energy are all measurable, and that the relation of the human body to its food is roughly analogous to the dependence of a machine upon its fuel.

Another type of general ideas which becomes explicit much earlier than those just used is represented by the concept of the earth as a whole. This naturally grows up through the incidental contact of the child with peoples and countries, and also in the repeated use made of the seasons of day and night change. The ever-present interest in the world as related to other worlds than ours shows itself as early as seven, and grows more definite at eleven or twelve, when the child is ready for formulation of ideas of this type.

As we watch the developing child, we find this continual inter-

play of the activity of observation, of experimentation, reflection, and application in a new activity, growing more and more definite and controlled. The first generalizations of the child are concrete in form. He inclines to make no formulation of results in terms of the processes that lead up to them, but to pass over into a new activity which involves the principle or idea obtained in the previous activities or experimentation, and which would have been impossible save for the presence in their minds of the conclusion arrived at from the preliminary experience. As the end of the activity becomes more remote, the consciousness of the steps to that end also grows, until we finally reach the more conscious swinging of the mind from observation and experiment to end in view—to reflection upon results, to recognition of principle and law, and again to renewed observation and experiment, and extension to new phenomena and experiments of the old principle passing into a new, so developing the controlled mind we call scientific.

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ELEMENTARY ART TEACHING IN THE LABORATORY SCHOOL.

II.

In a public village school in which all classes were mingled the critical attitude did not develop until about eleven. The best work was produced by children of high-grade mechanics. The members of the Laboratory were at first hampered because of a lack of inherited tendency to manual dexterity.

In comparing the Laboratory and the public school it was noticeable that the village children had a greater number of visual images than those living in the city. The result of the first year's work averaged better in the village school than in the Laboratory. At the end of four years in the former there was not enough difference between the work done by the second and third grades and that by the seventh and eighth. On the other hand, a very definite step was shown between the work of the different groups in the Laboratory. While there are not enough data on which to base positive conclusions, a general knowledge of conditions would lead to the assumption that the results in the village school are due to a lack of initiative and of original thinking. Dictation and imitation are too large a part of the method employed in daily work. It is also difficult to give art its proper function as the expression of the life of the child when his other work is so formulated that it does not give him any real living experiences.

The adult is apt to expect too much of one who is expressing himself for the first time in pictorial language. The person who demands a visible and immediate *quid pro quo* is apt to establish a false standard. Results are obtained by means of methods which put a deadlock on development. The fact becomes apparent when after a few years of precocious results normal progress suddenly stops. A child who expresses himself at all necessarily makes use of all the visual symbols. These images are, of course, crude. A tree is interpreted as a straight line drawn upward

from the ground. The branches are extended horizontally from the trunk in regular and symmetrical order. The child's first need is to acquire a large number of generalized images. Then he must be encouraged to use them. As he uses them, the teacher must lead him to make them more specific and individualized. The danger of uncontrolled self-expression was mentioned. If, as in case of the tree, this first crude symbol is repeatedly expressed, a false and conventional idea will become fixed in the mind. It is important that the first concept should at once be enlarged by a more definite knowledge, not only of the appearance of the tree itself, but of its relation to the landscape. At six the individual will be able to express the distinction between the form of a poplar and of an oak. He will also make the discovery that the tree which is near to him is larger than the one more distant. To bring these facts to consciousness, and to give the power to express them, are a part of what may be termed the beginnings of technical training. While impressions must be corrected, on the other hand there is not sufficient interest in the formal side of things to draw a tree just for the sake of learning how. There is always some ulterior motive.

To gain freedom of expression, it is necessary to adopt materials which yield most readily to direction. Colored chalk, charcoal, and water color are most commonly and successfully employed for this purpose. Beyond the kindergarten clay has been used but little, and tradition seems to confine it to the production of subjects much too trivial for the child of eight or nine. Plastic art is one of the universal forms of expression. The potter's craft has its beginnings in primitive conditions, and its development shows the evolutionary stages of the race. It therefore has a value as handcraft, as reinforcement of history, and as an æsthetic expression. While, on the one hand, the sculptor's art serves man's material needs, on the other, it expresses his spiritual emotion. Because of this universality it seems to contain processes which will satisfy the growing child. In my experience it is certain that he can in no other medium reach the same standard of technique as in clay. Its concreteness

serves to give definite ideas to the vague mind and to wake up the sleepy one. It responds readily to various impulses. It is also capable of prolonged and painstaking manipulation. During one year it was used in groups ranging from six to twelve years of age, and the reaction of each class was noted. In every case the work began with creative effort. The subjects developed largely from the other studies of the group. Attention and interest were sustained, though many of the first productions required about six hours, distributed through a period of three weeks. The technique was about two years in advance of anything produced in the "flat."

Methods must be adjusted to the three stages of development —motor, visual, æsthetic. Of course, the aim of all instruction is to hasten the transition from the lower to the higher plane of consciousness, but it can be done only by working out from the known to the unknown. Early instruction must be formulated on the motor basis. It seems best to begin with the concrete medium, clay. This calls into use the natural method of gaining experience by a sense of touch. In developing a lesson in form the six-year-old child with eyes closed feels of the object, and notes its points of conformity to and difference from the type. Characteristics are intensified by contrast. It is only in this way that the type solids are used. Interests are then special rather than general. In representing fruits and vegetables of the farm, the farm animals, the farmer himself—subjects in which school life have created an interest, and which the youthful mind has individualized—he learns as much about the type-forms indirectly as if he were studying them directly. The advantage of this method is that he is gaining an art-experience rather than mastering a mechanical exercise. As soon as he can express the form in clay, he learns to translate from the round into the "flat." There is continual alternation between clay and color and charcoal. One of the first technical difficulties is that the child does not know how to express on the flat surface the sensations gained by touch. Motor exercises, such as repeating in the air the motion made in feeling of the surface of the object, are a help in making the co-ordination. With older students

such an exercise, which in itself may serve to create a motor image, intensifies the visual impression. Clay is used in the first figure work. A wire frame is given the child, and, after dramatizing the action which he intends to represent, he bends the wires into the same position, and they are nailed to a board. In accordance with this method the six-year-old classes have represented the farmer sowing, carrying the grain to the mill, etc. It is an easy matter in the next step to draw the frame on the board and "build the clay" over it in the form of a mass of chalk. This latter is practically the old method of making stick figures, and seems especially adapted to the motor period.

A motor experience such as walking from tree to tree is one of the best methods of developing space concepts of landscape. To correct the tendency to make objects in the foreground very small, so that pictures look like maps or bird's-eye views, a motor experiment is necessary. In such an experiment performed out of doors a child stands directly in front of the class, and attention is called to the amount of distance which he covers up. As he walks away, they realize that he seems to "fold up." After establishing the fact that on level ground the observer is as tall as the horizon, there is a motor basis for comparison. The house in the foreground must be large enough to enter. The tree must be tall enough to climb. These experiments are the means of correcting the original expression, and, as development progresses, they constitute an ever-widening technical interval.

The number of visual interests is greatly increased by utilizing the play spirit. Visualizing exercises in the form of memory games are helpful. Some of these games involve the retention of a succession of form and color images. When objects are placed before the members of a class, they will look once, and then will draw from the first impression. The gain in the memory work consists in obtaining a momentary concentration. All children show an early tendency to pictorial expression, but unless the impulse is carefully encouraged it disappears. This is undoubtedly due to the fact that the technical training has not kept pace with the general mental development. This was the cause of the disgust for art manifested by the older students during the

initial year of the work. Later classes, which have begun at six and have been normally developed, at nine are quite fearless in undertaking to express themselves. In view of a general change of attitude which appears at about this time, it seems necessary rapidly to increase the technical power, and to give work which arouses all the physical energy. Clay is especially adapted to this purpose. A class once spent twenty-four hours, or three months, in making copies of Barye's animals. This desire to reproduce the work of others followed rather pretentious efforts in original clay composition. There seems to be a natural tendency to vibrate between creative work and more conscious technical effort, the latter interest growing out of the former.

The most difficult questions relate to the method in æsthetic training. I feel that educators are only on the threshhold of this subject. I wish to express here my personal indebtedness to Mr. Arthur Dow. He has made clear the fundamental principles which unify all forms of artistic expression. It has been with these in mind that I have watched the development of interests during the last two years. If æsthetic training is to be brought to bear upon the child, like technique it must be adjusted to the level of consciousness. During the period when there is only an unconscious instinct there should certainly be no formulation of principles. Development should progress through the unconscious exercise of artistic judgment. The furnishing of the kindergarten playhouse, the arrangement of a seed collection, the dressing of a doll, modeling of a sand table, the construction of a sled—all afford opportunity for consideration of beauty. The weaving of a rug includes the choice of colors, the proportion of stripes, or the arrangement of a more complicated design. This work creates the idea of a surface decorated by lines and colors. As he reaches the age when he likes to formulate his experiences, it is an easy matter to lead the child to see that there is something in common between his rugs and the freely expressed picture. The crafts movement, a factor for either great artistic good or evil, must be utilized. A sense of structural beauty, in which material and form express adaptation to use, are the foundation stones of æsthetic and ethical development.

There is no reason why this should not begin even in the kindergarten. The habit of using one material in imitation of another, and materials which are so flimsy that they will not serve the purpose for which they are intended, begins the establishment of a false standard, which reaches its logical culmination in the tawdry imitations of the modern department store. It was a pleasure to find in a recent exhibit specimens of kindergarten furniture made out of cigar-box wood, instead of the traditional cardboard and paper. These pieces had a substantial appearance and a look of reality that must have given satisfaction even to an infant mind. When a child reaches an intellectual development where he can manipulate a Navajo loom, he can certainly be led to realize as a concrete problem that it is necessary that within a certain space there should be a principal color-thought, and that in order to gain this end one set of colors must be subordinated to another. To allow him to exercise a savage taste, without any effort to bring higher standards to bear upon him, would be equally as criminal as to make him draw abstract designs when he is not ready for them.

Æsthetic growth must proceed through the reaction in expression and through the influence of art masterpieces. These are of value in two ways: first, they become an expression of the child himself by presenting an idealization of his own emotions; secondly, they furnish technical standards. It is only that which corresponds to or idealizes the world we see or know which is beautiful to us. The corollary of Browning's oft-quoted lines is that we do not love seeing painted things that do not awake within ourselves the echo of any corresponding experience. When we use the term "experience," of course the imagination must be included as one of its sources. Selection must be made from those works which the child can interpret. It would seem natural to find these among the works of races of corresponding development. The simple technique and dramatic action of Egyptian and Assyrian sculpture always awaken a response from children. The designs of primitive races are vibrant with strong and beautiful color. Such art-expressions as these should be

held before the child as representing the ideals of which his attempts are faint echoes. If art is to be of value in his life, these ideals must move on before him—a guiding star, ever receding as he advances to the fulness of his moral and intellectual growth.

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ELEMENTARY MUSIC TEACHING IN THE LABORATORY SCHOOL.

II.

SONG-SINGING.

SONG-SINGING as a cultural means is the chief element in the music work of the school. From the kindergarten to the oldest class, carefully chosen songs with piano accompaniment are taught to the children by rote. As far as possible, their own choice is noted, and such songs are selected as shall directly appeal to the genius of the group. At first it seemed a matter for regret that a collection of songs suited to our requirements could not be found, that each child in learning a new song might be having added practice in sight-reading. It is evident, however, that in singing from the printed page there are certain restrictions in bodily poise which reflect upon the volume and quality of tone, while much of the ear-training and memorizing connected with the rote song is lost. The piano accompaniment is valuable as a cultural means. Its presence cultivates independence in holding the melody (incidentally a preparation for part-singing), while it awakens a sense for correct harmonic progression. Songs without a harmonic background lose the stimulating and inspiring quality which children beyond the primary grades should have. The three-part song whose harmony is complete and satisfactory without accompaniment—as Mendelssohn's "Lift Thine Eyes"—is also, of course, highly educative.

Songs learned in group work are sung in chorus practice, which occurs each week for one half-hour period. Until last year there were two choruses, the children from six to ten years forming one, and those from ten to fourteen years forming the other. This year the school has been divided into three social groups, and a chorus has been formed of each division. The children of six and seven have joined the kindergarten for social

music, those from eight to eleven forming a second chorus, and the older children from twelve to fifteen forming a third. With this grouping the selection of songs has been freer and the grade of difficulty higher. In practicing a repertoire in a group it has been a successful device to allow each member to suggest a song to sing. This gives a sure indication of the songs best adapted to the genius of the group. Perfection has not been sought in the song-singing of the school; drill on detail would become drudgery to the child whose sense of melody is dull and whose pleasure in song-singing is proportionately slight. Such songs have, however, been chosen as should possess an inspiration for the children singing them, and a good rendition has been a natural outcome. An occasional suggestion as to bodily poise, deep breathing, and enunciation has been given, but in proportion as the musical sense has been awakened in the individual child has the singing become pure in quality and musicianly in phrasing.

For two quarters, winter and spring, 1900, the children received special vocal training from an assistant whose beautiful voice was a source of inspiration to them. Few exercises were given, the period being spent chiefly in song-singing, but through imitation an increased volume and better quality of tone were soon noticeable.

SONG-COMPOSITION.

In the early years of the school creative work in music was carried on by means of short phrases. To a given poetic phrase or line the children were encouraged to offer an original musical setting. This was then harmonized by the teacher and used as a basis for rhythm analysis and further technical work. The method is one originally created for classes of children who are making a special study of music. In a school where children without special musical motive have to be considered this method of separate phrases does not possess sufficient intrinsic interest. To take the work out of the realm of arbitrary exercise and to give it a motive appreciable to the unmusical child, we have enlarged its scope and instead of phrase-writing have attempted song-writing. When the idea of writing an entire song with

words and music was first presented to the children, they regarded it as a daring enterprise. The first song, "Hurrah for Thanksgiving and the Football Game," was written in a spirit of frolic. About forty songs have been completed by the children since this first, and the work is now regarded by them as being more serious than any other phase. The formal work included in the notation limits the production, and two songs a year are usually as much as a group asks to write.

The purpose of song-composition is fourfold: first, to interest the unmusical child in the study of music through his sense of proprietorship in a group song; second, to encourage self-expression; third, to create problems on the formal side of music study which shall be vital to the child; fourth, to afford opportunities for the selection and handling of musical material—the using of musical tools.

It cannot be foreseen which group songs will become popular and live in the school. The five representative songs given below have been received with special pleasure and sung by the chorus of which the authors are members. Such songs are learned unconsciously, without assistance from the teacher.

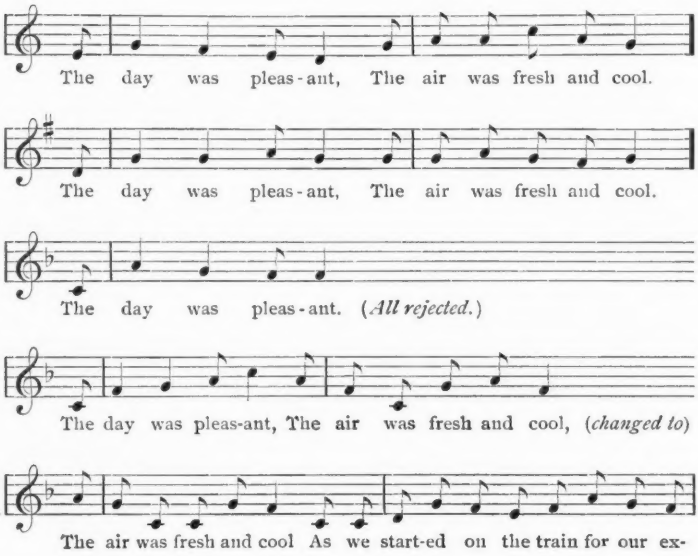
The method of procedure in song-composition is as follows: The children suggest several subjects, from which they choose one as the topic for their song. If the group is unified, this selection is simple; if of diverse interests, several votes have to be taken before the members agree upon a subject. The younger children usually select an experience personal to themselves.

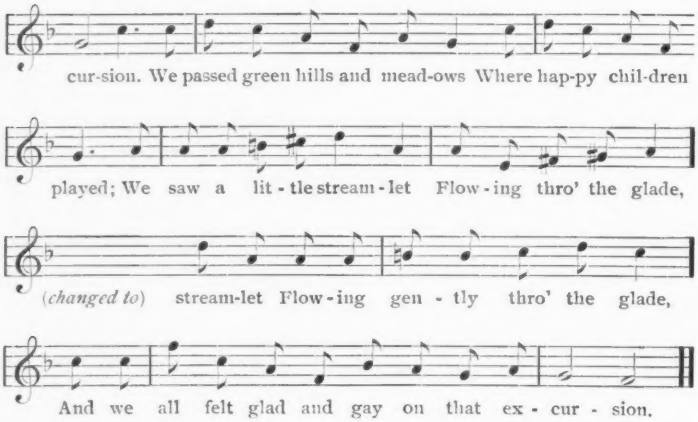
The occasional work in literature in the school has invariably brought a request for permission to write a song, the topic being accepted unanimously. The three songs from "Robin Hood" have arisen from such source, "The Tourney" indirectly from the same. It would seem that the verse-making might naturally enter into the work in literature with better results than are sometimes attained. An opening line being offered, the group passes judgment upon it. It is freely criticized by the children as to matter and mode of expression, choice words being substituted for unmusical or slang phrases. In the case

of a sporting topic (such as a football or baseball song) a free use of field expressions is allowed.

When the first line is pronounced satisfactory, the teacher notes it down, and a second line is called for. If too many suggestions are given and a confusion arises, the children are asked to wait their turn to speak. If a line given be unrhythmic, the teacher repeats this while swinging the pulse suggested by preceding lines, until the children perceive and correct the error. Though more time would be given to criticism if the work were chiefly literary rather than musical, the text is not left until it is acceptable to the entire class. The music is then called for line by line. The teacher takes each melodic phrase as offered and quickly gives it a rhythm-harmonic background in order that the group may better judge of its merit. Rejected phrases are usually as numerous as those accepted. Following is a record of a song, with its rejected phrases, which will serve to illustrate:

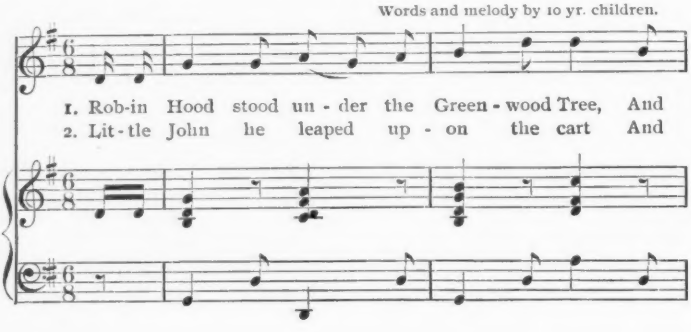
REJECTED PHRASES.

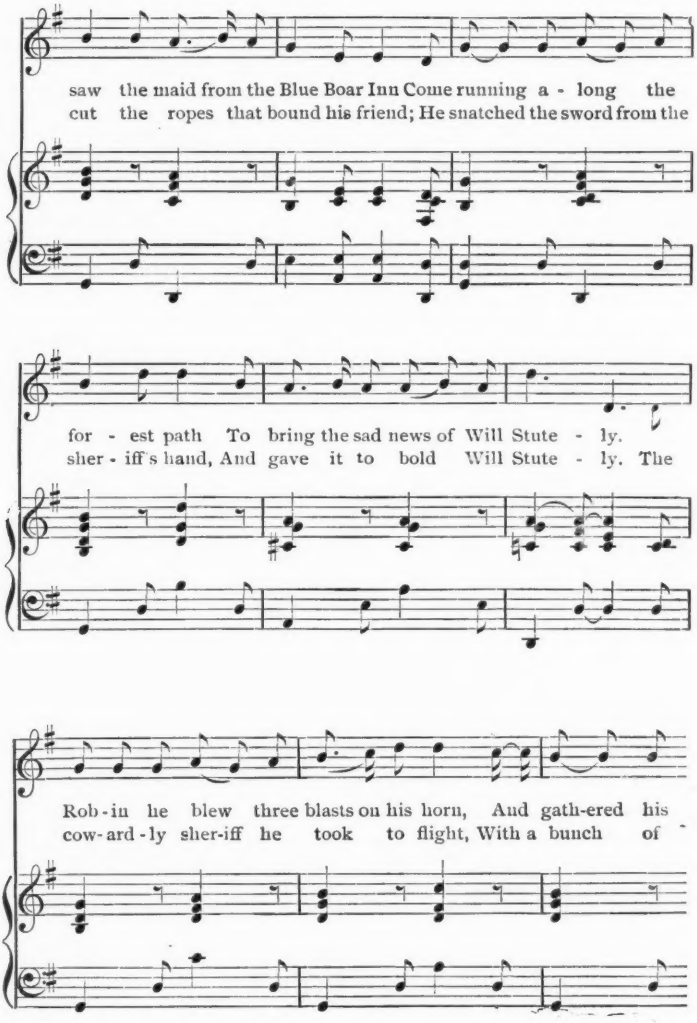
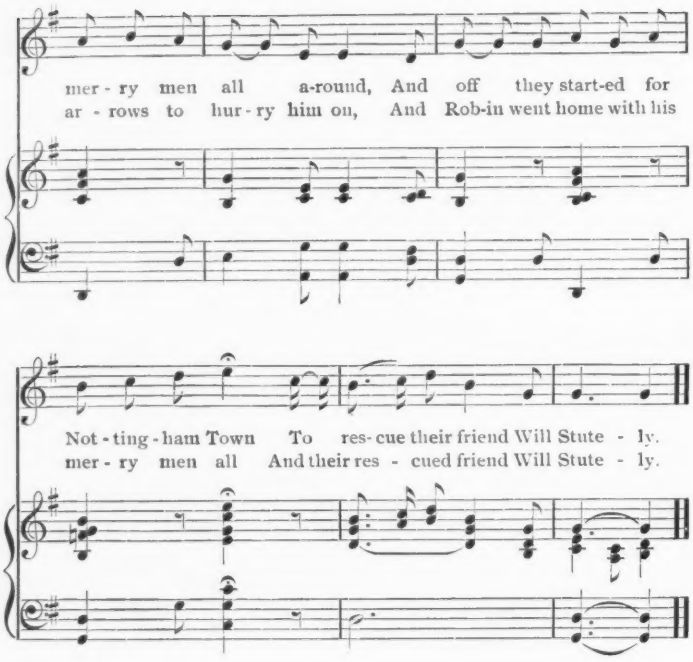

The day was pleas-ant, The air was fresh and cool.
The day was pleas-ant, The air was fresh and cool.
The day was pleas-ant. (*All rejected.*)
The day was pleas-ant, The air was fresh and cool, (*changed to*)
The air was fresh and cool As we start-ed on the train for our ex-


cur-sion. We passed green hills and mead-ows Where hap-py chil-dren
played; We saw a lit - tle stream - let Flow - ing thro' the glade,
(changed to) stream-let Flow - ing gen - tly thro' the glade,
And we all felt glad and gay on that ex - cur - sion.

An exception to this occurred in "The Rescue of Will Stutely," where there were no rejected phrases. One debate arose over the melody of the last measure. Half of the class preferred to have it read *a, g.* The others insisted that the repeated *g* sounded "old-fashioned," and that was what was needed in a "Robin Hood" song.

THE RESCUE OF WILL STUTELY.

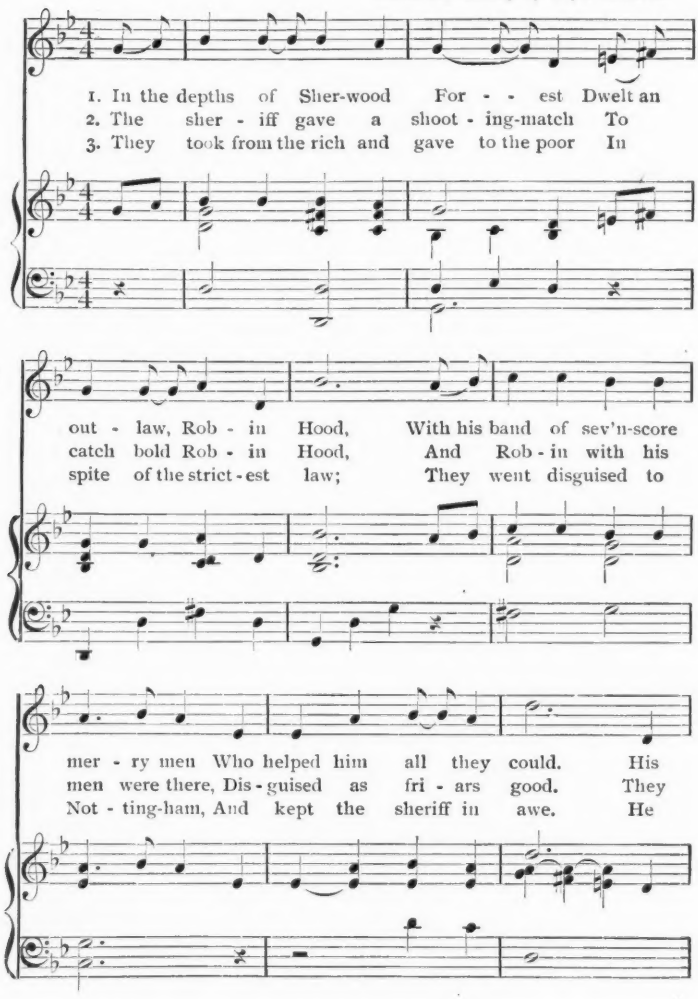

Words and melody by 10 yr. children.
1. Rob-in Hood stood un - der the Green - wood Tree, And
2. Lit - tle John he leaped up - on the cart And

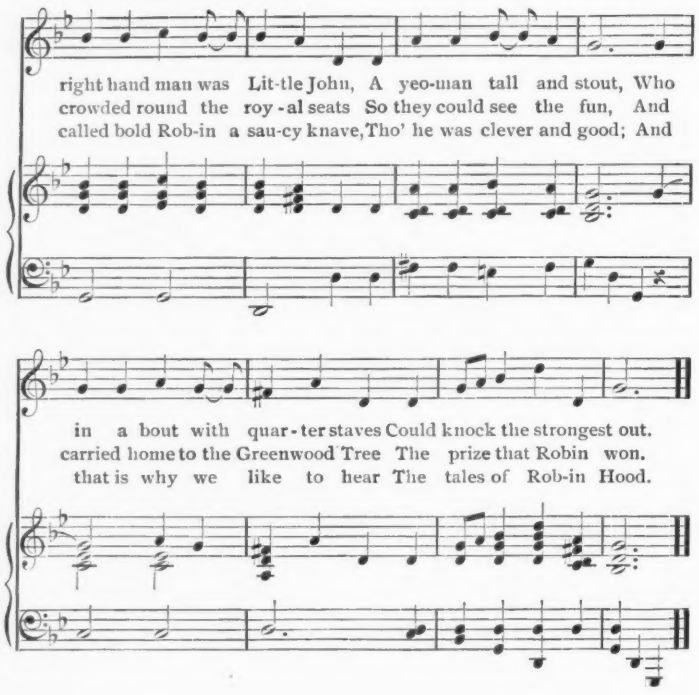

saw the maid from the Blue Boar Inn Come running a - long the
cut the ropes that bound his friend; He snatched the sword from the
for - est path To bring the sad news of Will Stute - ly.
sher - iff's hand, And gave it to bold Will Stute - ly. The
Rob - in he blew three blasts on his horn, And gath-ered his
cow - ard - ly sher-iff he took to flight, With a bunch of

mer - ry men all a-round, And off they start-ed for
ar - rows to hur - ry him on, And Rob-in went home with his
Not - ting - ham Town To res- cue their friend Will Stute - ly.
mer - ry men all And their res - cued friend Will Stute - ly.

This reaching toward an expression of the mediæval atmosphere which they felt in the "Robin Hood" literature was noticeable in the making of the first of these songs, "Robin Hood." The children wrote the melody up to the final phrase in G major. One boy here suggested that the tune sounded much like the other school songs, whereas "Robin Hood" was different from other stories. He wished they could write something more like "Under the Greenwood Tree" (Eleanor Smith). The teacher explained that the latter was written in a minor key, whereupon the children asked to hear theirs played in the minor. It was received with enthusiasm, the effect produced being what they wanted. A final phrase was given to complete the minor melody, and a third verse of eight lines written to prolong the text.

ROBIN HOOD.

Words and melody by 11 yr. children.


1. In the depths of Sher-wood For - - est Dwelt an
2. The sher - iff gave a shoot - ing-match To
3. They took from the rich and gave to the poor In
out - law, Rob - in Hood, With his band of sev'n-score
catch bold Rob - in Hood, And Rob - in with his
spite of the strict - est law; They went disguised to
mer - ry men Who helped him all they could. His
men were there, Dis - guised as fri - ars good. They
Not - ting-ham, And kept the sheriff in awe. He

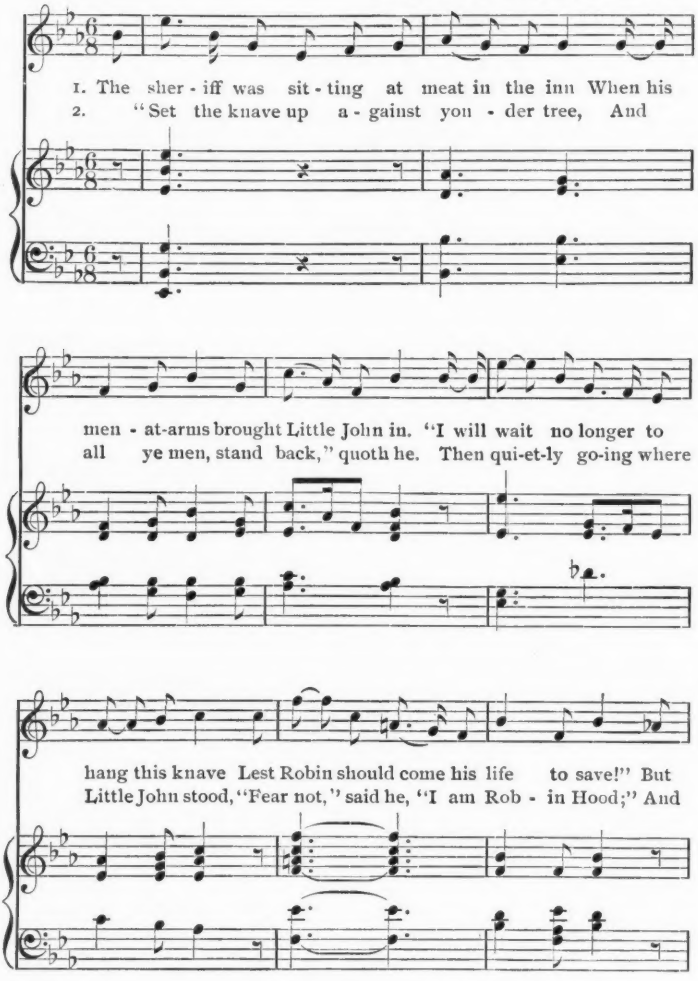
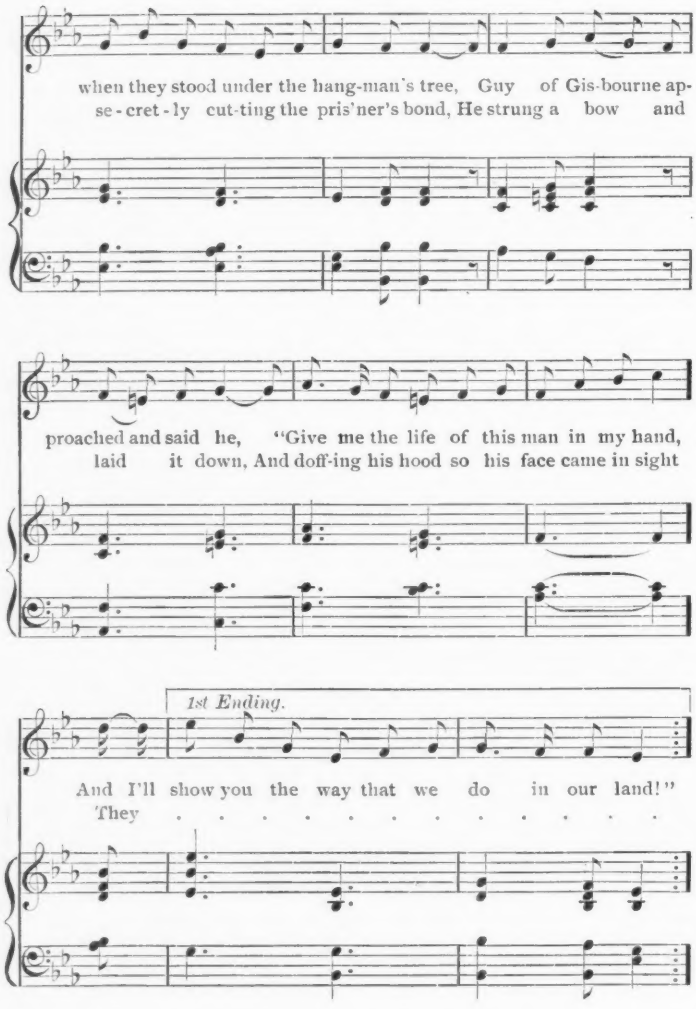

right hand man was Lit-tle John, A yeo-man tall and stout, Who
crowded round the roy-al seats So they could see the fun, And
called bold Rob-in a sau-cy knave, Tho' he was clever and good; And
in a bout with quar-ter staves Could knock the strongest out.
carried home to the Greenwood Tree The prize that Robin won.
that is why we like to hear The tales of Rob-in Hood.

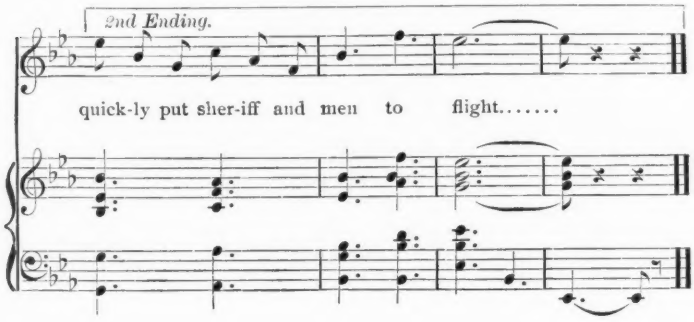
In "How Robin Hood Saved Little John" the melodic phrases offered for the setting of the supposed villian's words were as low as could be growled. It being suggested that children's voices could not by any means be made to sound like a gruff man's voice, they concluded to make those phrases sad instead of low.

"The Club-House" was written for a social function celebrating the opening of a club-house which the older children had planned and themselves erected on the school grounds. It was sung on that occasion by the older chorus.

"The Tourney" was written by four boys who, on account of change of voice, had lost interest in singing and had been having formal work separated from the rest of their group. The

HOW ROBIN HOOD SAVED LITTLE JOHN.

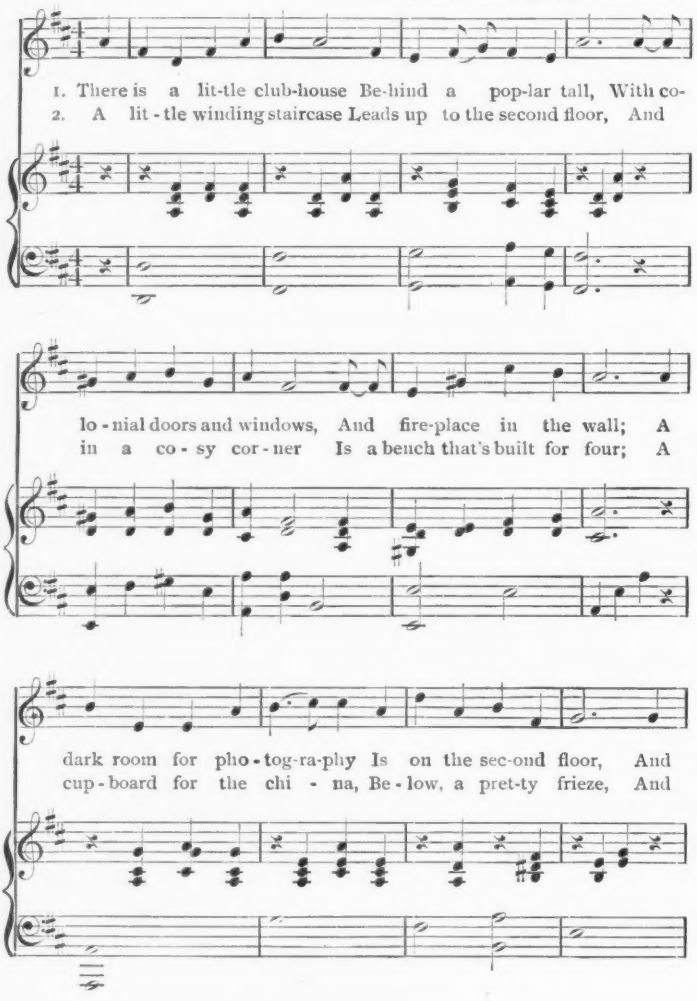
Words and melody by 9 yr. children.

1. The sher - iff was sit - ting at meat in the inn When his
2. "Set the knave up a - gainst you - der tree, And
men - at-arms brought Little John in. "I will wait no longer to
all ye men, stand back," quoth he. Then qui-et-ly go-ing where
hang this knave Lest Robin should come his life to save!" But
Little John stood, "Fear not," said he, "I am Rob - in Hood;" And

when they stood under the hang-man's tree, Guy of Gis-bourne ap-
se-cret-ly cut-ting the pris'ner's bond, He strung a bow and
proached and said he, "Give me the life of this man in my hand,
laid it down, And doff-ing his hood so his face came in sight
1st Ending.
And I'll show you the way that we do in our land!"
They

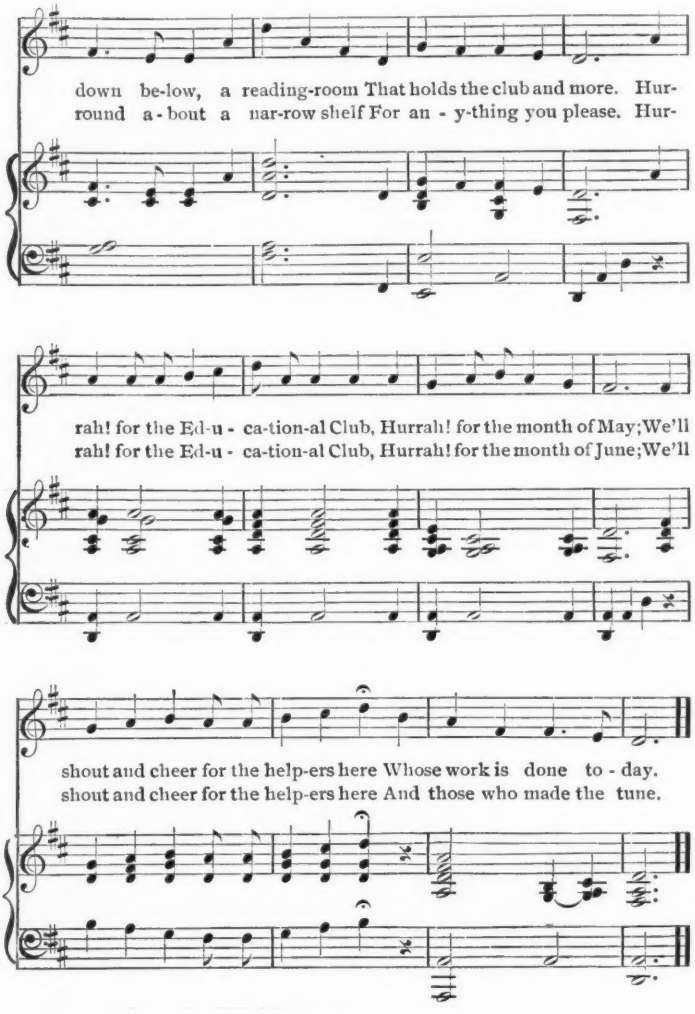


topics which were tiding over the songless period had been exhausted, and music was about to be discontinued when one suggested that they write a song about a bull fight or a wrestling match or a tournament. The suggestion was accepted by the teacher, who foresaw through the possible success of a song an opening for recommenced song-singing. Having had *Ivanhoe* in their previous year's literature work they decided on "The Tourney" and wrote the text with facility. This being completed, they were confronted with the problem of composing the music. Being still unwilling to sing, they could not express their melodic ideas. It was proposed by the teacher that they read their text as a poem to the chorus; but, not satisfied with the idea, they asked the teacher to write the music for them. This was agreed to, provided they would freely criticise, and the first phrase was put on the board. They were not pleased with it. One boy said it went down where it ought to go up and went up where it ought to go down. The notes were changed according to his dictation, and the new phrase was accepted by the class. A second phrase was composed in the same way, the teacher giving points of departure; and thus the work proceeded. In the latter half of the song, however, some phrases were put on the board without the teacher's help, and the finished melody was actually theirs, none of the original phrases having been retained.

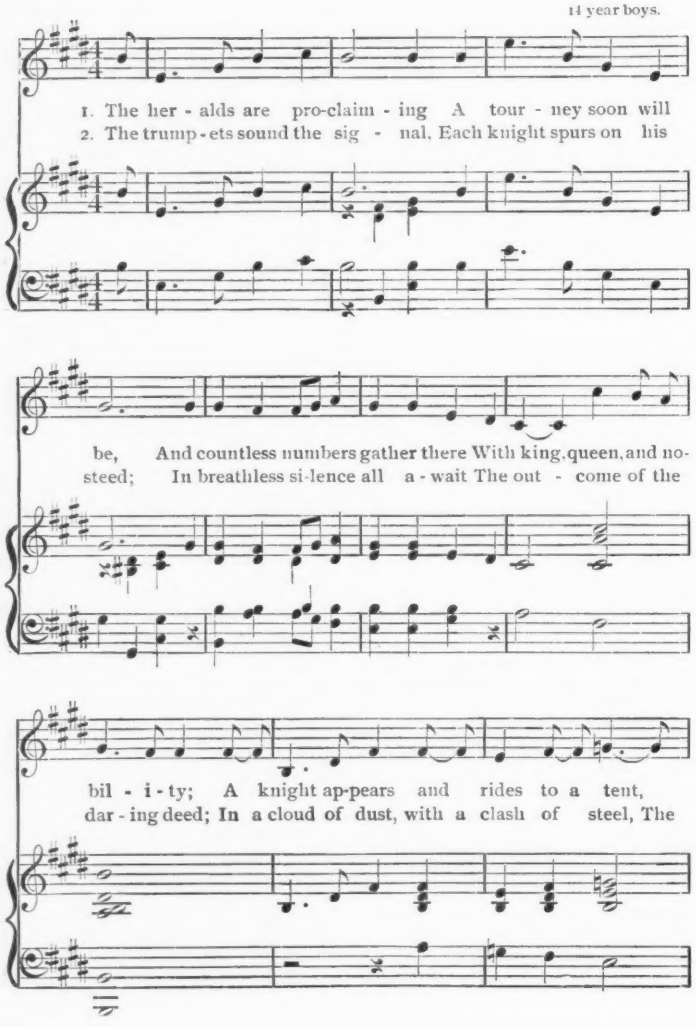
The song, being more elaborate in form than any one previously composed in the school, roused much interest. It was

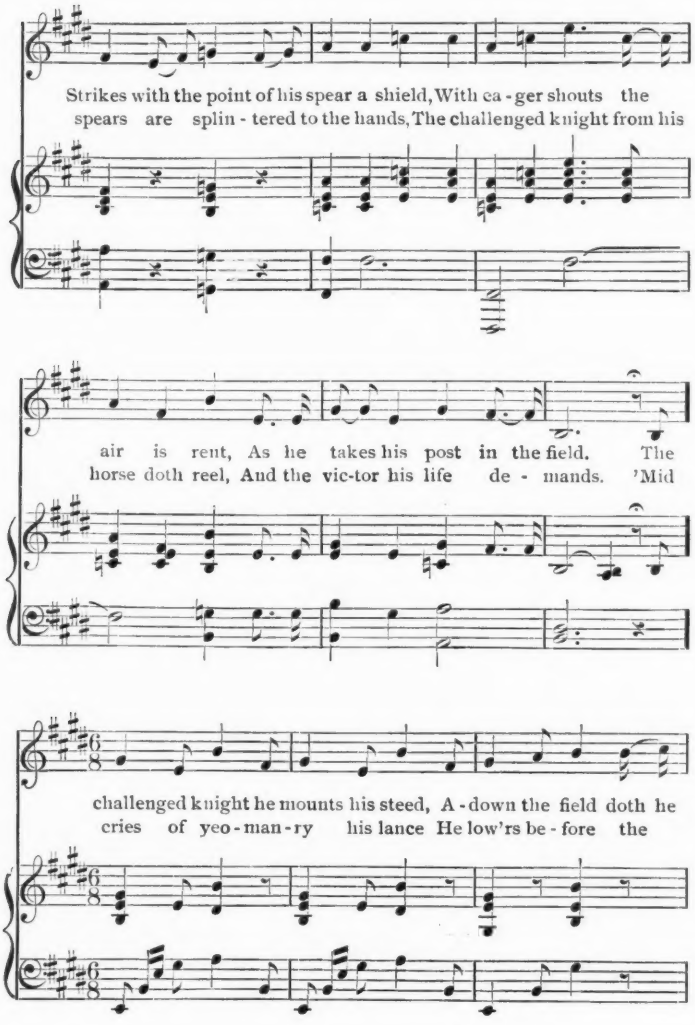
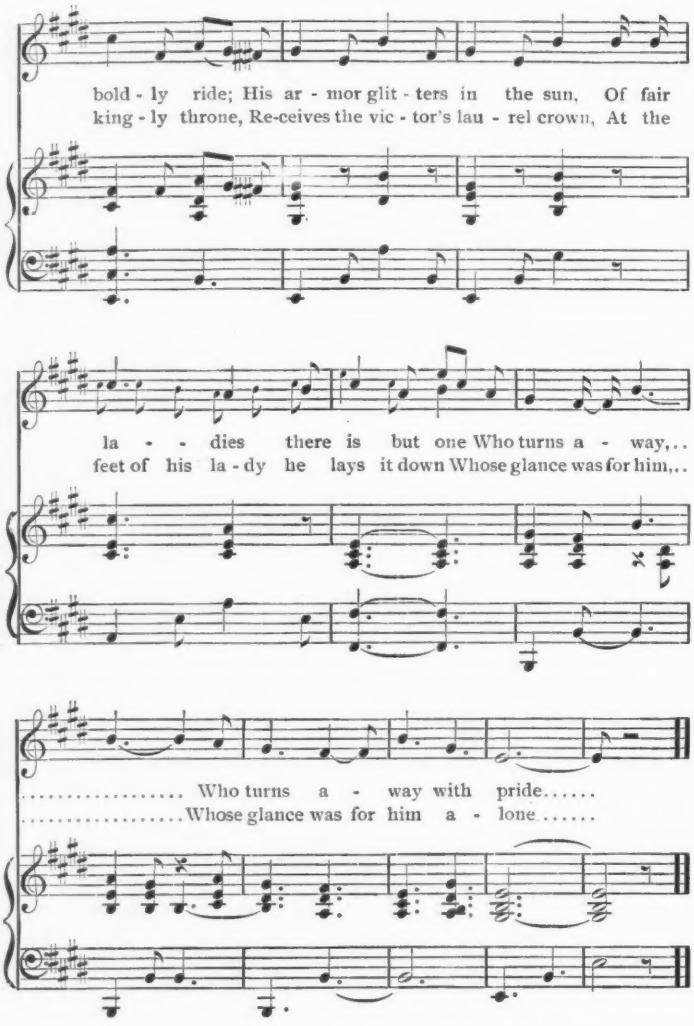
THE CLUB HOUSE.

Words and melody by 13 yr. children.

1. There is a lit-tle club-house Be-hind a pop-lar tall, With co-
2. A lit - tle winding staircase Leads up to the second floor, And
lo - nial doors and windows, And fire-place in the wall; A
in a co - sy cor - ner Is a bench that's built for four; A
dark room for pho - tog-ra-phy Is on the sec-ond floor, And
cup - board for the chi - na, Be - low, a pret-ty frieze, And


down be-low, a reading-room That holds the club and more. Hur-
round a-bout a nar-row shelf For an - y-thing you please. Hur-
rah! for the Ed-u - ca-tion-al Club, Hurrah! for the month of May; We'll
rah! for the Ed-u - ca-tion-al Club, Hurrah! for the month of June; We'll
shout and cheer for the help-ers here Whose work is done to - day.
shout and cheer for the help-ers here And those who made the tune.

THE TOURNEY.

14 year boys.

1. The her - alds are pro-claim - ing A tour - ney soon will
2. The trump - ets sound the sig - nal, Each knight spurs on his
be, And countless numbers gather there With king, queen, and no-
steed; In breathless si-lence all a - wait The out - come of the
bil - i - ty; A knight ap-pears and rides to a tent,
dar - ing deed; In a cloud of dust, with a clash of steel, The


Strikes with the point of his spear a shield, With ea - ger shouts the
spears are splin - tered to the hands, The challenged knight from his
air is rent, As he takes his post in the field. The
horse doth reel, And the vic-tor his life de - mands. 'Mid
challenged knight he mounts his steed, A - down the field doth he
cries of yeo - man - ry his lance He low'rs be - fore the

bold - ly ride; His ar - mor glit - ters in the sun, Of fair
king - ly throne, Re-ceives the vic - tor's lau - rel crown, At the
la - - dies there is but one Who turns a - way,..
feet of his la - dy he lays it down Whose glance was for him,..
..... Who turns a - way with pride.....
.....Whose glance was for him a - lone .....

quickly learned by the members of the older chorus, who invited the non-singing composers to chorus practice to hear it performed. The boys were disappointed in the result. They felt so strongly that the high-pitched voices did not do justice to their song that they decided to sing it themselves. It was accordingly transposed to suit their voices, and formed the first song of their repertoire in the bass clef.

MAY ROOT KERN.

THE UNIVERSITY OF CHICAGO
Laboratory School.

ELEMENTARY HISTORY TEACHING IN THE LABORATORY SCHOOL.

II.

In the next year, age nine, a change is noticeable in the attitude of the child toward his work. Some reflection is noticeable between the inception of a thought and the attempt to embody it either in words or in action. The child is beginning to select from the impulses that come into his mind those that lead toward the attainment of the object in mind, whether that object be the successive steps necessary to be taken to obtain an end or the order in which sentences shall be expressed to make a thought clear. It is the period when the child is beginning more consciously to form his methods of work and to consider his ideas of values. He begins to be interested in *how* he is to accomplish an end; he is interested in reducing methods to some system.[1]

With many educators the difference between the facts they would give to children and those they would give to university students consists merely in amount, provided the subject could be used at all with children. The more mature mind is expected

[1]Dr. Dewey's statement of this period is found in the *Elementary School Record* for May, 1900: "This is the transition to 'voluntary' attention, but only the transition. The latter comes fully into being only when the child entertains results in the form of problems or questions the solution of which he is to seek for himself. In the intervening stage (in the child from eight to, say, eleven or twelve), while the child directs a series of intervening activities on the basis of some end he wishes to reach, this end is something to be done or made, or some tangible result to be reached; the problem is a practical difficulty, rather than an intellectual question. But with growing power the child can conceive of the end as something to be found out, discovered; and can control his acts and images so as to help in inquiry and solution. This is reflective attention proper. . . . . In general, this growth is a natural psychical process. But the proper recognition and use of it is perhaps the most serious problem in instruction upon the intellectual side. A person who has gained the power of reflective attention, the power to hold problems, questions, before the mind, *is* in so far, intellectually speaking, educated. 'He has mental discipline—power *of* the mind and *for* the mind. Without this the mind remains at the mercy of custom and external suggestion."

to grasp and hold more, and to have more in mind to which the facts given at any one time will relate. There is, however, a fundamental difference which is overlooked in this conception. It is a difference in regard to the *use* of facts. If facts are considered as material for constructing mental imagery, the difference is seen more clearly. Education is a process of remaking experience in the presence of new facts, and a child may not be able to remake an adult's experiences. He may accept them, remember them, and recall them when asked for; but they do not therefore become a part of his experience. Dr. Thomas Balliet once visited a class in Latin and asked what the word *manus* meant. No one knew. He then wrote the Greek equivalent, *manus* = *cheiro*, and asked: "Now, how many know what *manus* means?" Every hand was raised. Here was a new fact, but as no child could translate either the Greek or the Latin word into his own language, he could not take the new fact into his experience as a growth in language.

This view of the process of acquiring knowledge is not merely psychological; it is philosophical. It necessitates a radically different conception of the attitude of the mind of the learner and a different point of view of the function of the teacher. In this conception of education the subject-matter is the raw material with which the mind of the child works; it is that out of which he constructs. The constructions we call images. They are ideas. They grow and change from year to year, even from day to day, as the child changes in height, weight, and expression. They are the character of the person, as inseparable from him as his voice, his glance. The teacher cannot do this constructing. She may classify the material, acquaint the child with the value of the different parts, guide him in detecting that which is true and that which is false, the valuable and the trivial; and do this in so simple terms that his past experience enables him to comprehend the new facts. The normal attitude of a healthy child-mind is eagerness to know; it is only when knowledge is presented in a form that makes it difficult to comprehend, or is of a kind that is unsuitable, that the mind rebels.

This does not mean that the child should not accept statements

from adults, or that he must reason out for himself abstruse questions of religion or politics. It merely means that, unless the bringing to the child's mind of new experience is in a form that he can assimilate into his own thought and past experience, it remains in his mind merely as a weight to be carried. Each mind is strong enough to carry a certain amount of "weight" until the time when it can be transformed into mind-stuff, but when the amount becomes too great, mental dyspepsia and the stoppage of normal action result. An instructor at the University of Chicago, whose interest in his own special subject was very profound, once said that "every professor is compelled to carry about a lot of impediments in the way of information, for fear some fool will find out he hasn't got it." Fortunately most minds forget promptly what they cannot use, so that it does not remain as impediments. But the waste of time in teaching that which can only be forgotten!

The problem of the teacher, at the beginning of the reflective stage, becomes more complex. In general she must see that the subject-matter of history is so presented that the child's mind will reach out, question, examine, and analyze the forces at work in causing the men and women who make up his part of history to act thus and so, in order to understand how their acts aided or hindered progress. History now becomes less empirical and more a matter of authentic record, so that the question of a definite recall of what has been studied comes more into the scheme. The attack upon the subject-matter is different; it is not so much a question of how a people *might* meet a problem of conditions as a question of *fact* and why it happened. During the previous years the child has gained some conception of space-relations in his study of the world as a whole; definite time has meant little. He must now get some idea of the effect of time. This begins vaguely, but as the study proceeds, a knowledge of dates as an aid in comparing events is found essential. The child is still studying indirect sociology, and his study must be one of types, in order that he may gain independent methods of work which will enable him to understand other problems of history. A statement of the problem at this age is given by Dr. Dewey in

his article on "The Psychology of the Elementary Curriculum," in the *Elementary School Record,* December, 1900.

This introductory statement applies to the work in history up to the secondary-school period, when the mental attitude may again require a change in the treatment of subject-matter.

The subject-matter of these years might be greatly varied from that given below and yet have the same educational value. It is believed, however, that the study of the child's own country best serves the aim of the work, and in his own country his own locality first.

Three months are first given to the study of Chicago, the French explorers, and the early settlers in the Northwest. This gives an opportunity to enlarge the concepts formed in the study of the Phœnicians and the early explorers. Marquette, like Livingstone, is actuated by religious motives in exiling himself from his native land; Joliet as a trader, by the same impulses which sent the Phœnician merchants off on long and hazardous voyages. In searching for natural highways into the interior of America, the child finds the Mississippi and St. Lawrence as he found the Nile, Niger, Congo, and Zambezi in his study of Africa. He can therefore compare the American rivers with those of Africa, the Indians with the negroes, and the difference in development of tribes in America with those of the other peoples he has studied. The new type in history is a study of the development of a city from a fort and trading post to the form which the child sees about him. The children are told, or read themselves, the story of the first trip of Marquette and the winter spent by him at Chicago, the story of the development of the trading post, the building of the fort, and the coming of pioneers, and they trace the development of the city to the time of the great fire. This includes the isolation of the early pioneer and his means of getting his furs to the seacoast, his tools, weapons, manner of living, etc. In imagination the child sees the frontier life develop into a thriving village, with need of a local government, system of taxation, improvements, etc. Through this discussion he is guided to comprehend simple forms of civic politics, so that the paved and sewered streets, the policeman and the post-

man, the alderman and the mayor, with all of which he has been somewhat familiar, have now more definite parts in the social world. Again he has a type of development which will aid him in comprehending the development of other cities.

After a study of Chicago, the rest of the year is given to the study of typical American colonies: Virginia as a southern colony, Massachusetts as a northern one. The connection is made by remembering where the Chicago citizens came from, and then going back to see how these people came to the Atlantic coast and how they first lived there. The church and the state as institutions come in now as parts of the social life of a people. In the study of colonial history efforts toward religious and political freedom underlie the life of the people. With the child, as with the colonists, the question is first one of how a people accustomed to civilization, suddenly removed to a new country at a great distance, can work out anew the question of living. On the side of England the question is: How can these colonies, started in order to draw from the new world the wealth which had made her rival, Spain, so strong, serve England's interests? The class studies what happened and gets as much as it is able to comprehend of the deeper questions. Naturally the first question is how the people in the new land can be kept alive, since they could not live as the Indians did, independent of the civilization from which they have come. When the new country has become sufficiently established to be able to exchange products for European manufactures, the question becomes an economic one. By this time the colonies feel strong enough to resist, and then comes the desire for independence which resulted in the Revolution.

The first consideration is, of course, the character of the people who came and their reasons for coming—the character of the land they found, their first attempts at establishing themselves, and the forms of government.

An attempt was made to get the children to eliminate those conveniences of civilization with which they are familiar until they began to realize how it would seem to live in America without a single railroad, steamboat, or road of any kind except

Indian trails and rivers; to be dependent upon England for every yard of cloth not brought with them, and for salt, pepper, sugar, vinegar, tea, coffee, etc.; to imagine how it would seem to have no fuel except wood, no means of lighting a fire except flint and steel; to have no oil for lamps, no cattle from which to get milk and butter; to have to build houses of logs, since there were no saw-mills. The children discuss the new conditions of life that must be met; for England was just beginning her empire and had to learn by experience the art of colonization. Methods of preparing food for indefinite preservation were unknown. Before fields in the new country could be cultivated, forests must be destroyed; and the Englishman knew but one way, that of swinging his broadax, until taught by his Indian neighbors to girdle a tree in the spring, before the sap began to run, either by cutting around it or by fire; for the Indian had only a stone ax. But when the green trees had been cut down with much blistering of hands and aching of arms, the settlers found that their English wheat, planted in the warm climate and fertile soil, sprang up rapidly and grew so fast that it all went to stalk, leaving the muscular strength as the only reward for the labor.

A vivid description of the settlement of Virginia and the motives which led to it is followed by a discussion of why things were as the historian describes them; whether the starving time was due solely to the "community of goods" system and consequent idleness on the part of the gentlemen who came to find gold, or whether it might not in part be accounted for by the lack of knowledge of soil and farming, and the difficulties of clearing ground with such methods as they then had. The children are thus interested in discovering that the English did not know how to plant corn until John Smith compelled an Indian to teach them. A few facts about Captain John Smith were sufficient to create a desire to know all about him, from his marvelous adventures in Turkey through his services to the Virginia colony and his exploration and naming of New England. The children thought his importance to the colony so great that they expected complete failure after he left, and, because it verified their pre-

dictions, were pleased to discover that, through attacks of the Indians (no longer intimidated by Smith), disease, and famine, the colony was reduced from five hundred to about sixty persons in a year.

A statement of the effect of tobacco in exhausting the soil was used to imagine the changes that would follow in the life of the people when tobacco was found to be the best possible export for Virginia, and especially when the value of slaves in cultivating it was discovered. It was easily seen that the large plantations, each with its own wharf, would make towns impossible, and that lack of towns would affect education, the demand for professional men, the army, and social life in all forms. But tobacco as an economic factor was not discovered until many experiments had been made; so the attempts to make Virginia a wine-growing country and a producer of raw silk were given as illustrations of efforts to make the new colony of benefit to the mother-country.

In following in story form the development of the first permanent English colony the child learns more than the mere facts. In considering the life of John Smith, or any other hero of the early times, he sees a whole life in perspective. He has had little experience with people that will aid him in judging character. In the study of characters in history the motives of action and the results stand out prominently; youth with its conditions and age as it has worked out its life are brought together. Thus the lives of historical personages bring to the child, in a sense, contact with the experiences of long life. This character study is made in connection with its natural setting, as the child images the life of the people and the times. That these persons studied are ancestors of himself or his friends gives a deeper interest to the work, and, as he identifies himself with the colony, he appreciates those who help on, and is indignant with those who hinder, progress; and this helping or hindering, he comprehends, is not a mere question of *willing*, but depends upon what a man *is* and has power to do. Therefore his conception of his own social world is becoming clearer, and he begins to get a glimpse of the close network which binds every individual to every other.

In the study of early colonial history the child is also getting an idea of law and government. The child of nine or ten has little idea of abstract law. Law is to him what he believes to be just and right, and this conception is to be enforced by his own strength. This was clearly indicated when the question of dispute over a boundary line occurred. To make the problem concrete, the children were asked to suppose two men to disagree about the place of a fence between their adjoining lots. What could be done about it? Almost without exception the children identified themselves with the man whose land would be decreased by moving the fence. They conceived only of the two involved as having any part in the matter, and the only solution suggested was that "some dark night the fence be moved back" to where the injured man thought it ought to be. When it was suggested that the next night the other man might move it back again, and that this might be kept up indefinitely, the gravity of the situation kept the class silent for a few minutes. Resort to violence was suggested, and that each get his friends to help. Original grants, resort to a judge, etc., seemed, when suggested by the teacher, much less likely to be a just solution.

From such crude ideas of law and government the children are led to consider the value to the colonists of the assembly and its share in the government, the question of the prerogatives of an assembly, the rights of a governor, the rights of the unrepresented people, etc. The study of colonial history, therefore, furnished only the "carrying medium" for the deeper and more universal study of the adaptation of a civilized people to the primitive conditions of a new environment, the study of character, the training of judgment. In these early days the prototype of our democratic form of government was worked out, and the child who is just beginning to be interested in the city and national elections is able to comprehend how they began.

In New England the colonial question has a different phase in the religious reasons which induced the Pilgrims and Puritans to leave their native land and seek homes in a new country. Commercial products in New England were different from those in Virginia, because of the difference in latitude and physiographi-

cal conditions. Lumber, fish, and furs are their exports. But the difficulties involved in exchanging these to the best advantage bring out the same trouble with England which Virginia had experienced with tobacco; the navigation laws begin to be enforced, and thus New England and Virginia, two colonies greatly unlike in the beginning, unite in opposition.

The question of contact with the natives in America gave an opportunity to review and enlarge concepts formed in the preceding year's study. Previous knowledge of primitive man, of Eskimos and Africans, and of Phœnician traders, is now brought to bear upon a people living in a temperate climate, and affords a basis for comparison as to the way in which the Indians had worked out their degree of civilization. In getting land from the Indians the same methods were used that have prevailed through the ages when a people with superior weapons and brains in sufficient number meet an inferior people. The question of the higher moral attitude in a few individuals, as when the Pilgrims and Willam Penn paid the Indians for the land they occupied, is seen. John Eliot is an Englishman who has the salvation of the souls of the heathen as much at heart as Marquette or Livingstone. The question of the development of government has different phases, and thus there is opportunity for comparison and for an enlarged view. New types of character are also studied as developed in New England.

The fur trader in colonial life was the pioneer of the pioneer. It was he who made friends with the Indians and discovered the fertile fields along the valleys and the naval stores in the pathless forests. The place where he waited to meet the Indians at stated seasons, the "fall line" of the navigable rivers, or the mouth of a tributary became the first rude village in the back country. These were the places where navigation by water ceased and boats must either be carried around a fall or across a strip of land—a "portage" to the next river. These little "trapper" stations were often surrounded by fields and cattle, as a permanent station was established, and grew gradually into straggling villages, especially if the falls furnished the power for a saw-mill and the surrounding hills the lumber. These little

villages were the bulwarks of the older settlements. The life of the fur trader gives a truer picture of pioneer life than a general description of the first year at Plymouth, or than any one colony alone, because one is typical of pioneer life throughout the colonies, and the other of only one locality. In finding the routes of the first fur traders the boy or girl is getting his geography in the natural way—as the fur trader got his. He is getting also a lesson in commercial relations, if he finds out how the trader knew where there were furs and how he made his bargains with the Indians; why they decided on a particular meeting-place; how he obtained the right to trade; how he managed his business—whether the furs were tanned for him by the Indians or by his own men; where the furs were sold; whether duty was demanded, and how much; what was exchanged for furs in England, and what became of the exchange when brought to America. To discover this the child must be referred to books where he can find the facts; and in thus following out a line of thought he is getting a method of historical investigation as well as the power of drawing conclusions from facts. Moreover, he cannot, if he would, forget the facts, and it has all come about through his human interests and must react in broadening and deepening his sympathies. He is not only acquiring a knowledge of facts; he is being educated, refined, cultivated.

Expansion back from the Atlantic coast is also a typical condition, and can be well illustrated in the history of New England. Here the valleys run chiefly north and south, and in the valleys alone could the soil be made to yield fair returns. Northfield, Deerfield, Greenfield, Westfield, Springfield, etc., as the names of towns indicate the character of the land. The head of the valley could best be protected by settlers, and, as a reward for greater dangers, fertile fields could be appropriated. Expansion, therefore, was along the line of rivers, moving up the valleys. Narrow valleys necessitated rapid expansion; broader valleys were longer in being filled. Professor Frederick J. Turner, in his article on "The Significance of the Frontier in History," in the *Fifth Herbart Yearbook,* carries this idea out in explaining the expansion of the middle Northwest.

Lumbering and fishing are two industries which had much to do with the growth of the colony and with its political difficulties, and can be carried out as fully as the subject of the fur trade.

In studying one type fully, hidden causes are discovered which help to cultivate the investigating spirit. That the fishing banks of Newfoundland were the most prolific of the world is not taken as a statement merely, but the desire to find out to what this is due is aroused. This brings out the fact that the icebergs of the North melt in the warmer waters of the South, depositing the dust and débris they have carried; and this continually renews the soil on these shallow banks, making a fine feeding-place for worms. The worms attract the fish, which retreat to the colder and more brackish waters to spawn, but come here to feed.

In this year the ability to read and write is sufficient to make it possible to use books as a means of getting facts, and writing as a way of preserving records of work done. The plan has been to make this introduction to the use of books a habit which is to be followed throughout life. Books are used as a means to an end. A question is raised on which the book is conceived to be capable of throwing some light, and the table of contents or index is used to refer to the part needed. Occasionally the teacher refers the children to two books giving contradictory statements, in order that the child shall not acquire the habit of believing everything in print. A number of books which children of this age can themselves use, and which furnish much supplementary material to that taken up in class, are kept in the history room, where they may be referred to whenever desired. Each child purchased two books for use in class in the history of Virginia, and two for that of New England. But these were read as material supplementary to what the teacher gave orally. Map-modeling was chiefly in sand, but relief maps were referred to constantly in study.

In habits of work the plan has been first to contemplate and discuss the situation, and what the members of the class would deem best to be done, were they the colonists; next, either from the teacher or books, to discover just what was done; then to

decide what would probably be the effect of the action or decision; then again to find out what history states as a result. The question of comparison of situations was taken up to see whether any other people whom we have had decided differently in a similar situation, and, if so, the result in their case.

The children are encouraged to draw conclusions from the facts at hand, and even to insist upon the validity of their conclusions from the data they have, always, however, with the feeling that more data, which may change the conclusion, may be discovered. One day, in talking over the question of precipitation of rainfall and its return to the clouds, one child insisted that, if all the springs were feeding the rivers, and all the rain fed the rivers, and all the rivers led into the oceans, either the seas would become bigger and bigger, and wash away all the land, or the clouds which absorbed the water would get bigger and bigger, and obscure the sun all the time. The teacher, thinking he was considering each process separately, tried to explain that both evaporation and precipitation were taking place all the time; but this did not seem to meet his difficulty. His earnestness in insisting that his conclusions must be right led to going back to the beginning, when it was discovered that he had thought the springs were the result of internal waters, unconnected with rainfall.

The habit of quickly recognizing what one does not know, and of investigating that, is also insisted upon. A word of which the meaning is not clear, a paragraph where the thought is obscure, a reference that is not understood, must be inquired into. One must be able to know what he does not know in order to learn.

This is the beginning of the teaching how to study, and is closely related to the gathering together in one's mind and arranging in order all that is known about the subject at hand. The aim of the teacher is to get the children to systematize their knowledge through their interest and their pleasure in the result. This must be done very simply at first, merely recalling where the same name has occurred before and in what circumstances, but leads gradually to power to hold the mind to a general

thought, until into consciousness has come the full possession of previously known facts in regard to that subject.

Thus the method of attacking history is similar to that of science. There is first the recognition of conditions, an attempt to relate the situation to any previously studied; then a hypothesis as to the effect of manipulation of conditions; then a study of the effect; and then generalization of results. In the study of industrial questions in different colonies the child must recognize and abstract the principle of the demand to be controlled through their assemblies alone, as the one element in common with all colonies which would lead them to resist oppression from England. The child does not always get these deeper truths in definite forms that he can state, but the method of work has been such as to make them a part of his study of the life of the people. They are in his mind as problems which the people have to solve. Further experience and study cannot fail to bring them out in fuller significance.

No definite time limit is assigned for the ending of colonial history. From six to nine months are usually spent on the pre-Revolutionary period. This often carries the study into the work of Group VII (average age, ten years).

It is unnecessary to state in detail the methods of studying the Revolution. In general it should be said that the same scheme is followed as in the earlier years, viz., taking only that which is typical and fundamental, and then dwelling so fully upon this that it is conceived as a vivid picture of the times. The main lines of study are (1) the physiographical and (2) a consideration of warfare as a means of reaching a more ultimate result; (3) the growth of the spirit of union which culminated in the Constitution. The study of the campaigns of the Revolution is an opportunity to become familiar with the physiography of the thirteen colonies. For the first time the country held in America by English-speaking people became known to them through actual survey of its natural lines of travel and the relations of the various lines to one another. The Alleghanies, which had protected the weak English settlements from the strong tribes of the Five Nations in the Mohawk valley, were seen by

England to be the possible means of isolating the New England colonies from New York and the southern colonies. Thus the reason is seen for the northern campaign of Burgoyne from the St. Lawrence to Lake Champlain and the Hudson, and for the desperate efforts of Washington to defend the Hudson River route from New York, as well as the importance of Burgoyne's capture. Strategic points are thus a question of physiography. The importance of holding New York and Philadelphia in the same way was due, not to the fact that they were centers of large populations, as children so often think, but to the facts which in the first place made them large centers of population. So here again, as in the study of Chicago, the reasons for the location of cities are reviewed.

The physiographic conditions of a country are largely responsible for its industries. The New England farmers had discovered that their barren hills furnished pasture for sheep and cattle, and that cattle and wool were readily exchanged in the West Indies, together with their fish, for molasses, sugar, etc. England had by law prevented this trade. The fact that the laws could be only partially enforced did not remove the irritation they caused. From the wool, felt was manufactured into hats for export. But complaint of the London merchants brought about the passing of a law to "prevent the exportation of hats out of any of his majesty's colonies or plantations in America, and to restrain the number of apprentices taken by the hatmakers in the said colonies or plantations, for the better encouraging and making of hats in Great Britain." To understand the irritation such a law would cause, it is necessary to recall the stage of development of manufactures before the Revolution. In the study of textiles the children have worked out the invention of the various steps in the manufacture of cloth, from the primitive period, with the simple spindle and rough loom which limited the size of the cloth to the size of the loom, to the colonial period, when the heddle, roller, and fly-shuttle had been introduced, though all power is still by hand, and all manufacture in the home. They are therefore able to comprehend the change that would come with the beginning of inventions which brought in the

factory system. They are told that steam had not been applied to machinery as a power before 1769, and that the spinning jenny (a frame with a number of spindles side by side, so that many threads might be spun at once) was not invented until 1770; that the use of water-power for Arkwright's loom was not used before 1771, and the "mule"—a combination of the spinning jenny and the water frame—not before 1779. When they understand how the power of spinning was increased by these three inventions, and that of weaving by the use of the power loom (1785), they comprehend how these inventions, rather than the removal of adverse English control, made possible the rapid growth of manufactories at the close of the Revolution.

The laws against exporting their own manufactured articles touched closely many individuals and aroused direct opposition, because of the domestic state of manufacturing at that time. The fact that trade regulations were modified because of the opposition expressed did not remove the uncertainty felt as to the use of English control over the colonists. And when the complete enforcement of even so small a tax as that on tea is attempted, the effect on people who had in mind the previous laws, and the results which might possibly follow success in enforcing even a small tax, is appreciated.

In the study of the Revolution, if the breaking down of opposition is conceived as the main end in view, the battles become but mere incidents in the struggle, and the unwholesome sensationalism of their details is to some extent avoided. It is an effort on the part of each combatant to see whether this last battle will not bring about the surrender of the opponent. So the center of thought and study is taken from the battles and focused on the ethical and scientific side of the struggle. First, which side is justified in beginning a resort to brute force as the only method of attaining its end? This consideration includes the study of characters strong in their belief in the justness of the cause, and willing to undergo great personal sacrifice and hardships, and even death, for the sake of a cause which they believe to be so vital to human progress. In the second place, on the scientific

side, it is a question of what conditions must be taken into consideration, and how they can most easily be made to serve the end in view. This brings in the intellectual side, conceiving plans and carrying out tactics.

Following the terms of the treaty of peace, the acquisition of further territory by the United States, giving it its present boundaries, is studied.

The attempt has been made in the next year (average age, eleven) to give to the study of American history the same balance and completeness, through getting an outside point of view, that are given to the eight-year-old children in the study of the Phœnicians and early world-explorers. In each of these years the effort is made to gather together the knowledge of the two preceding years and grasp its significance as a whole in larger relations.

The attempt was made to see the development of the American colonies from a European point of view. England, France, and Spain were taken as the countries which attempted colonization in the New World, in the East Indies, Africa, and Australia. The methods and aims in claiming and holding territory; the character of the settlements; the connections with the mother-country; the comparison of colonies established by a country in different parts of the world (as England's colonies in America, India, Africa, and Australia); the conflicts of different countries over land claims, and the working out of some principles of international law; a comparison of the different national methods of establishing and controlling colonies—these were some of the points taken up. This scheme has not been sufficiently worked out to report upon in full. One of its chief difficulties has been the lack of books containing the facts written in a style that children of this age can read.

In brief, it may be said that the outline of work gave an opportunity to gain a general world-view of the subject of colonization. It was necessary to compare climates, to realize the physiography of the different regions, the industrial products possible, and the trade routes open for their exchange with products of other countries. The study also brought out the changes

resulting in European countries from the opening of new lands, the knowledge of new products, and the necessity of dealing with larger areas, larger masses of people, new conditions. The concepts of society have thus been increased from the consideration of a single tribe and its problems to the consideration, comparison, and judging of nations. Throughout this year the point of view was the same as with the two years just preceding. The conditions were to be recognized as forming problems which the nation had to work out. Sometimes the problem was two-sided, the mother country forming one part, the colony the other. The number of conditions to be recognized and held in mind was much greater than in any preceding year, and the problem had to be stated in larger terms; but it was power to do this that was aimed at as well as the knowledge of facts involved.

The foregoing is a report of history, in which the subject-matter and method of treatment have been made a matter of experimentation, and the results have been deemed satisfactory. Other periods of history have been studied, especially that of England and of Rome; but the best age at which to introduce these, and the character of the subject-matter and method of treatment, have not been sufficiently determined to make a report desirable at this time.

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THE BEGINNING OF FORMAL LANGUAGE WORK.

Spoken and written language have two phases: thought, and that which conveys the thought—the words. While children cannot profitably study the form of expression without studying the thought which it expresses, they may safely study the adaptability of the form for expressing the thought. As a locomotive is kept in good repair, cleaned, and oiled that it may convey its cargo safely and speedily, so words, which are worth nothing apart from their function, must be well chosen and arranged that they may convey the speaker's thoughts simply, accurately, clearly, concisely, sometimes powerfully and sometimes beautifully. While children cannot fully appreciate this fact, they can realize some need for working on the engine, and, if the right spirit prevails, they will enjoy the cleaning and oiling which fall to their share.

Very little attention should be called to any distinction between the thought and its dress until the children's minds are well stored with ideas gained from a keen and happy observation of the outdoor world; from good stories; from songs and poems; from interesting biography and history; from drawing, painting, and hand-work; and from their contact with others in their homes, in school, and on the playground. Through reproductions of stories and conversations in the recitations, the children learn to express themselves, orally, with considerable freedom. Children from families where pure English is spoken speak with comparative accuracy; others, coming from homes where there is a lack of culture, use very poor English. Schools differ greatly in this respect. Those located in a city's slums have a class of children who scarcely ever utter a correct sentence, and whose vocabulary is very limited; while those in the best quarters of the city are attended by children who speak excellent English and have a surprisingly large vocabulary.

To correct an inaccurate expression, during the early part of

the school life the teacher gives the correct form in so quiet a tone that the child's thread of thought is not broken, and he repeats his sentence, or a part of it, using the form suggested by the teacher. *E. g.,* the child says: "I seen a bluebird this morning." The teacher, apparently unconsciously, deeply interested in what the child is saying, says: "You *saw* a bluebird this morning;" or she simply says *saw*. The child repeats: "I saw a bluebird this morning;" with his thoughts intent upon the fact which he wishes to convey.

If this method of procedure were to give us accurate speaking on the part of the pupils, it would need no reinforcement as the child advances through the grades. It cannot help but amend the child's language, for every time he repeats a correct form a fine thread of a habit of using that form is being woven. The muscles of his throat and of his tongue become accustomed to forming the words, and his ear becomes used to their sound. But when out from under the teacher's care—at home perhaps, or on the street—he hears the incorrect form used over and over, and uses it himself because it is more natural for him to do so. This strengthens the old habit. Something, therefore, must be done at some time to secure the conscious co-operation of the child in forming good habits of speech, if he is to use good language. While teaching to this end should not be hastened unduly, it must be remembered that had habits are getting a firmer hold with each added year.

Perhaps about the third year of school it would be well to use fifteen or twenty minutes a day teaching children to speak and write correctly. Not only would their forms of expression be improved, but they would be able to think more clearly. If most of the school day is spent in what are termed (with somewhat unfair discrimination) thought-studies, there is little danger that the child will think more about how he talks than of what he has to say.

Of what should the formal language work consist?

1. Of a campaign against the most common and most flagrant errors in speech, such as *seen* for *saw; done* for *did; is* for *are; has* for *have; laid* for *lay; set* for *sit; ain't got* for *have no;*

can for *may* (in asking permission); *yourn* for *yours; in* for *into; like* for *as; me* for *I*.

2. Of careful teaching of the conventions of writing. It is not our purpose, in this paper, to show how the very beginnings of writing and of spelling should be a struggle of the child to express himself. We are dealing with children who have already acquired the rudiments of both writing and spelling. These branches of learning are important and are taught in the third grade as occasion demands; but it is not within the province of this paper to deal with them.

a) There are two topics in spelling, however, with which we shall deal—the division of words into syllables, that a word may be properly divided when occurring at the end of a line, and the correct use and spelling of homonyms which children of this grade use.

b) They must learn, also, the value of certain punctuation marks, and how and when to use them. When talking, their thoughts and feelings were shown by inflections of the voice, by gesture, and by the expressions of the face; the punctuation marks suggest these to the reader. As these little folks express themselves simply, they will not need to use many different punctuation marks.

c) They must learn certain uses of capital letters—but only such as they need in their writing.

d) They need to learn early the use of the apostrophe and *s* showing that the words with which they are used denote possession.

e) They need to learn that the title of a composition tells in a few words what they are writing about. It requires careful thought to select the wording which will do this. Having chosen the subject, they must learn where to place it and how to write it.

f) Fashion among literary people has decreed that a margin be left at the left side of the paper. This they must observe. It it a real convenience for the children—a necessity, rather—when they wish to bind their papers.

g) They need to learn early how to give due credit for exact words quoted.

h) They should learn to organize what they have to say into paragraphs, the indentation to be the expression on paper of such an organization. This will be done only when the topics of conversation are clearly separated.

i) As most of their writing will be done in the form of letters to friends, they should learn that such a letter is only a talk on paper, the only formal thing about it being a somewhat conventional, but really useful, heading, which they must write properly if their letters are to please the eye.

3. One of the most important things for them to learn is to express their thoughts in fitting language. This involves a careful selection and arangement of their words. Not very much can be done along this line in the third grade, but a beginning can well be made.

SOURCES FOR THE FORMAL LANGUAGE WORK.

Through the children's oral reproduction of stories, their narrations and conversations, the teacher discovers their incorrect forms of speech. This plainly lays out her work along the line of reconstruction of oral language.

By far the most important thing for the children in the written work is the free expression of what is in their minds. They write compositions in connection with their literature, geography, and nature-study; tell how they play games, how they make certain articles, how they spent a holiday; describe a trip made by them into the city or into the country; tell of their plans for the future. All of the things which interest them they enjoy telling on paper. Absolute freedom to express their thoughts should be given them while they write these compositions. A drill in spelling the words which they will need to use; organization of the subject; caution, if need be, in regard to leaving the margin, position of the subject, or any other point in which they are weak—may precede the writing; but when they have begun their compositions, they should not be disturbed. It is the examination of these papers which reveals to the teacher the needs of the child in written expression, and suggests to her the help which she should give.

All the formal language work should have its origin in the

immediate demands of the child for help in expressing herself. Often he does not appreciate his need for help, but it is the business of the teacher to make him conscious of it, and, after that, sensitive in regard to the mistake which has been brought to his notice, until the correct form has become a fixed habit. There is no set order of topics to be taken up in the language class. The time for the teaching of each topic is determined wholly by the present demands of the child for help in expressing himself, as shown above. If the pupils talk and write without making mistakes, they need no drill, and there is no call for formal language work.

Because of a hope and a half-way belief that the children will learn form by intuition or by attention to the form of good speakers and writers (their attention being directed to no point in particular), pupils often go out of school poorly equipped to express what they know. They are thus handicapped in business and in society. Many children never reach the high school, where composition and rhetoric are usually taught; if they do, their habits of speech and of writing are firmly fixed. The good of the child demands the forming of correct habits of speaking and of writing early in the school course.

How shall the children be taught these elementary lessons in English?

The pupils must, as we have said before, appreciate the fact that each lesson is supplying a demand of their own as shown by mistakes in their speech or in their writing. The lessons must be within their comprehension and must be interesting. A few suggestions of one way of dealing with some of the problems are given here:

1. To correct forms of speech.

In a nature-study lesson, we will suppose *I seen* has been used over and over, and quietly corrected each time by the teacher. A moment before the end of the recitation the teacher writes near the top of the board, where it will not be erased and where the pupils will see it often, *I saw*. She tells the children that whenever she points to that expression they are to know that they have made a mistake and are to correct it without further

help. The children are encouraged to correct one another on the playground whenever they hear the wrong expression, that is, if a kindly spirit in this criticism is assured. During school hours the pupils will not criticise the speech of any of their number, no matter how often a mistake is made; for if they are looking for flaws in language they cannot give undivided attention to the thought. There was no need in this case for a separate period for language.

The following case requires more attention: Some morning the children are allowed to choose the songs which they are to sing and the poems which they are to recite. As usual, they make their requests in full sentences. Several of the children use *can* where they should use *may*. During the period allotted to language-teaching the mistakes which they made during opening exercises are referred to. The teacher tells the children that whenever they ask permission to do a thing they should use *may;* but should they wish to ask if they are able to do a thing, they use *can*. She may say to the pupils:

> You wish permission to play a game; how will you ask for it? The creek is high; you wish to know whether or not you can ford it; how will you ask? Ask, on paper, permission to do five things. Ask in five sentences if you are able to do certain things. Ask three questions, beginning each sentence with the word *may*. Ask three questions, beginning each sentence with the word *can*. Which sentences asked permission? Which asked if you were able to do certain things? Copy the following, filling the blanks with *can* or *may*, as the sense requires. Think of yourself as speaking to the teacher:
>
> —— we dramatize a story? —— we use the brooms for the poles of our wigwam? —— you guess what story we are to dramatize? —— the platform be moved? —— we invite our parents to see us dramatize the story? —— we do it well enough for them to see? —— we decorate the boards with pictures illustrating the story? —— we give the whole story in one afternoon?

The last blank, of course, may be correctly filled with either *can* or *may*. Before the teacher passes judgment upon the accuracy of this sentence she must find out the thought which prompted the child to use the one or the other.

After this lesson the teacher writes *May I* upon the board,

because this is the expression which the children need most often to use, and they correct their wrong expressions by the teacher's silent reference to it.

2. To teach and to correct written forms.

a) How to divide a word the whole of which cannot be written at the end of a line.

The teacher pronounces a familiar word, slowly breaking it into its syllables, and asks the pupils how many parts or syllables. Many other words are pronounced in this way; among them are given words of one syllable. The children tell the number of syllables in each word. She then asks the pupils: "If a word is to be divided at the end of a line, where do you think the division should be made?" The thoughtful children will say that it should be made between two syllables. Many words are put upon the board, the children telling where the divisions in the words should be made.

b) The use and spelling of the homonyms *two, to,* and *too.*

Suppose that the pupils have spelled *two* incorrectly in one of their compositions. During the language hour the teacher sends the whole class to the board. She says:

You told me yesterday, on your papers, that Gluck had two brothers. Several of you did not spell correctly the word that tells how many brothers Gluck had. One that is sure that he knows how to spell the word may write it. Then all write it. When do you spell the word in this way? (When it tells how many.) In the same story you wrote that Gluck climbed to the brink of the Golden River. How did you spell the word *to* in that sentence? You said he wanted to go. How did you spell the word *to* in that sentence? Give other sentences in which this same *to* is used. Write five sentences containing the word *two* [the teacher writing it upon the board]. Write five sentences containing the word *to*. Copy the following story, filling each blank with one or the other of the words about which we have been talking, according as the sense requires:

——dear old women gave a party —— all the children in our neighborhood. The party was —— begin at —— o'clock. I had —— go —— miles —— town —— get me a pair of shoes. When I arrived at home I found that the —— shoes were not mates. It was nearly time —— start —— the party. What should I do? It would do no good —— cry. I must go back —— town. I took —— steps where I had taken one before. This time I put on the —— shoes and wore them home —— make sure that they were all right.

I was —— hours late at the party, but I stayed —— hours after the others had gone home to make up the time I had lost. Father came —— get me. He said that was not the way —— do, and that I should not punish the people who gave the party on account of the mistake of the merchant. I hated to meet those —— old people after that. I felt like a thief, for I always thought of the —— hours of their time which I had taken.

Henceforth the children will be expected to spell these two words correctly. The use and spelling of *too* will not be taken up until the children have occasion to use it in their writing. When such occasion arises—as, for example, in this sentence, "My cakes are too large to give away"—a lesson like the following may be given. The teacher says:

In this sentence which you wrote yesterday [pointing to it where it stands on the board], most of you misspelled the word *too*. What did the old woman mean when she said her cakes were too large to give away? Say it as she might have said it. [My cakes are so large that I do not want to give them away;" or, "My cakes are larger than I wish to give away;" or, "My cakes are so large that I cannot give them away."] Which is easier to write—the sentence as you wrote it yesterday with the word *too*, or one of the sentences which you have given? Of what use is the word *too*? [It helps us to say what we wish to say in fewer words."]

Give each of the following sentences in another way, not using the word *too*:

The little match girl was too tired to go farther.

The porridge in the largest bowl was too cold.

The donkey was too old to work.

The duckling is too ugly to live.

What is the use of *too* in each of the above sentences?

Sentences with blanks to be filled involving the uses of *to*, *two*, and *too* will now be given.

There are other uses of *too;* these will be taken up when needed by the pupils in their written work.

c) The significance of the paragraph and its form.

A short story in which the division into paragraphs is very clear will be written upon the board; *e. g.:*

THE ANT AND THE DOVE.

An ant was very thirsty. It went down to the river to get a drink, but the water was flowing so swiftly that it was carried away.

A dove was sitting in a tree which spread its branches over the river. She saw that the water was carrying the ant away, so she quickly bit off a

leaf and dropped it into the water. It floated down to the ant. The ant clambered upon it and after a long ride was left on the bank of the stream.

A few days after this the dove was again sitting in a tree. A hunter crept softly toward the tree. He raised his gun and was about to fire when an ant gave him a vicious bite on his hand. He cried out with pain and dropped his gun. The dove, hearing the noise, flew away. It's little friend had saved the dove's life.

The pupils are acquainted with the word *paragraph*, it having been used many times in their reading. They can also distinguish the paragraphs in their reading, but no attention has been called to the significance of the word. The teacher asks the children to tell, in a very few words, what the first paragraph tells about; the second; the third. The pupils give topics worded somewhat like the following:

The accident to the ant.
The rescue of the ant by the dove.
The rescue of the dove by the ant.

The teacher asks: "How many parts of the story? How are the three parts separated?"

Other stories are placed upon the board, and the topic of each paragraph is given by the pupils. A set of Readers in which the paragraph form corresponds with the paragraph idea is brought to the class, selections from these are made, and the topics of the paragraphs are given.

Later, topics covering a familiar story are given to the pupils. They write the story, following the order of the topics, and separating into paragraphs as suggested by the topics. *E. g.*, in the story of "Red Riding Hood" these topics are given:

a) Red Riding Hood at home
b) The meeting with the wolf
c) The wolf at grandmother's house.
d) Red Riding Hood at grandmother's house.
e) Rescue of Red Riding Hood.
f) Her return home.

Later still the pupils take stories with which they are familiar, and from memory divide them into paragraphs, giving the topics of each paragraph.

Enough examples have been given to show how the formal language work grows out of the other work and reacts upon it.

It is partly constructive and partly reconstructive. When possible, dangers are pointed out just as they come into sight, and so escaped. When a misstep is made, the pupils are shown how to avoid a similar one in the future. Our purpose has been simply to show the need for more definite help for the children in their language work at just the time when they should have it and to plan to meet the need. It is not necessary at all that a period be set apart for this work, but the work is more apt to be done if this is the case; and it certainly needs to be done.

If, with the added needs and ability to think and do in each successive grade, as much or more be done in language-teaching each year, our pupils will be better able to appreciate and profit by grammar and the kindred studies when they are taken up.

This phase of language work about which I have written is not by any means the principal thing to be worked for. Free expression of the children's thoughts is the great thing—the one which should receive by far the greater share of attention. Only as this formal work helps the child better to express his thoughts and emotions is it of any value. Not long ago I read the letters written by a class of third-grade children to one of their number who had moved to a distant state. They told the boy just the things he would like to know. Their letters were long and very interesting and natural. They pleased me very much, for they showed that the pupils possessed the great thing in language work—the power to give out their thoughts freely. The words in these letters were poorly spelled, punctuation was lacking, and the general form was not pleasing to the eye. The letters would have been greatly improved in appearance had the children been taught how to present their thoughts on paper. The children possessed the principal thing, but they needed something more. It is this *something more* with which this article has been dealing.

In the third grade the greater part of the time in school should be spent in filling up—getting ideas; considerable time should be spent in pouring out, orally and in writing; and a little time in learning how to pour out. It is *the little time* only for which I make a plea.

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NOTES ON FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOL.

1. THE study of the Report of the Committee of Twelve of the Modern Language Association of America (republished by Heath & Co.) is recommended as the best contribution to the teaching of modern languages in this country.

2. The study of a foreign language ought to begin in childhood. In childhood the organs of speech are still in a plastic condition. Good habits are easily formed; bad habits more easily corrected. The fixation of speech habits in the mother-tongue, taking place in the later period of youth, makes it increasingly difficult to acquire even a moderately good pronunciation, and perfection is usually out of the question.

In childhood the mind acts more naively, and the memory is tenacious of whatever interests. Forms of expression, idioms, are readily mastered as single facts. Later in life, in proportion as the mind grows stronger, it also grows more rigid. Then the habit of analyzing and reasoning interferes more or less with the natural receptivity of the student.

3. It is doubtful whether a foreign language should be taken up in the primary grades, unless the beginner has the prospect and intention of continuing it through the secondary school. For what can be acquired of a foreign language in the primary grades, even under the most favorable conditions, is only a foundation. And while it is true that children learn quickly and easily the rudiments of conversation in a foreign tongue, it is also true that they forget them no less quickly and easily.

4. It is not advisable that a child study two foreign languages in a lower grade. Let it be optional whether the one foreign language be French, German, or Latin.

5. It cannot be doubted that pupils in a three- or four-years' course of secondary schools can learn the foreign language well enough to speak and write it with tolerable accuracy. How

much of this can be accomplished within the elementary school has yet to be ascertained. The study of this problem ought, therefore, to appeal to schools interested in educational questions.

6. Incidentally these schools would provide valuable opportunities for observation for the future language teachers studying at the University, as do public schools for some of the state universities. And the best methods worked out in their classrooms would thus speedily reach a large audience.

7. The teaching of foreign languages in the primary grades should be done by teachers who handle the language easily and idiomatically. The grammar method pure and simple would here not be in order. The general aim should rather be to familiarize the learner with the vocabulary and phraseology of the spoken idiom, and to teach him to express himself readily and correctly in easy sentences. The free use of objects and pictures is to be recommended. Classes should be as small as possible, and there should be an exercise on every school day. Infrequent lessons in large classes amount to nothing

8. The introduction of the study of modern languages into the school curriculum, especially of this country, is comparatively new. Owing to this, the results attained are often unsatisfactory. This lack of success ought not to discredit the educational value of the subject in question.

9. Efficient teachers are rarer in modern languages than in other branches. Causes for this: more expensive preparation owing to the stay abroad, lack of training facilities, the remuneration smaller.

10. The vacillation between the worn-out grammar method and the so-called natural method, the other extreme, ought to give way to a systematic endeavor to discover the best way of presenting the new subject. The Teachers College of Columbia University, New York, called a teacher of the Berlin public schools to introduce their method of modern language teaching to American audiences by lectures and practice lessons. The Germanic Department of the University will ask Dr. Bahlsen to lecture here in June of next year.

11. The teacher of modern languages is hampered in his

class-room work by the lack of that ideal text-book that keeps to the golden mean between the old-fashioned grammar and the innumerable conversational methods.

12. It is pretty safe to assert that the average young boy or girl takes more kindly to French or German than to Latin. The modern language is easier and more interesting. It seems more real and practical. Progress is more rapid. The value of Latin has to be taken on trust; that of the modern language is more obvious to the juvenile mind. For children of twelve the Latin grammar is a very severe study. It means usually for many months little more than the loading of the memory with paradigms, a blind investment of labor for the sake of a mysterious future profit which the learner cannot comprehend. The elementary reading matter is usually dull stuff, devised to illustrate grammar. Up through Cæsar's *Commentaries* there is almost nothing to touch the feeling, to feed the imagination, or to suggest a real connection with the pupil's own life. It is all grind, though in the proper time and place a very useful one. But the question is whether for children of twelve it is not best to break the force of the initial impact with Latin by using a modern language as a buffer.

13. The mastery of a modern language is the best means of acquiring a full appreciation of the classical languages (a statement of special interest because made by a member of the Greek Department).

14. A child's wrestling with another language does not mean a delaying of the development of the child's intellect. Logical thinking is inseparable from expression in a foreign tongue. This leads to the discussion of the disciplinary value of linguistic and literary study, and the well-known reasons for the study of foreign languages in general.

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